



Managerial and Entrepreneurial Developments in the Mediterranean Area

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Managerial and Entrepreneurial Developments in the Mediterranean Area

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FOREWORD

The EuroMed (European-Mediterranean) region has experienced rapid market environmental changes over recent years. The challenges and threats to academics, practitioners, researchers and governments of the region often have distinct differences to those experienced in other geographic areas in the world.

The EuroMed Research Business Institute (EMRBI) aims to contribute to and share the understanding of different business environments and trends in the region through research, teaching and consulting. It also seeks to provide an updated overview of the emerging business practices and stimulate and nourish dialogue in the countries of the region and neighbouring countries.

The purpose of the EuroMed Conference of the Academy of Business is to provide a unique international forum to facilitate the exchange of cutting-edge information through multidisciplinary presentations of new challenge in global business with special emphasis on European and Mediterranean countries.

All full papers and abstracts submitted to the Conference are subject to a peer reviewing process, using subject specialists selected because of their expert knowledge in the specific areas.

Academics, practitioners, and students at all levels throughout the world submitted original papers for conference presentation and for publication in this Reading Book. All papers and abstracts were refereed. The result of these efforts produced empirical, conceptual and methodological papers and abstracts involving all functional areas of business with a special focus on European and Mediterranean aspects.

ACKNOWLEDGEMENT

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Special thanks go to the University of Nicosia in Cyprus and the College of Management Rishon Lezion in Israel for their constant support and contribution. Moreover, our appreciation goes to the University of Salerno for organising the Conference.

A successful conference could not be possible without the special co-operation and care of the Track Chairs and Reviewers for reviewing the many papers that were submitted to this conference. Special thanks to the Session Chairs and Paper Discussants for taking the extra time to make this conference a real success.

The last but not the least important acknowledgment goes to all those who submitted their work to be considered for presentation at the conference.

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INTERNATIONAL TRADE: GOVERNANCE NOT REGULATION THROUGH A META-MODEL :HINTS FOR AN EUROMEDITERRANEAN AREA 2069

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THE INTERNATIONAL STRATEGIC ALLIANCES BETWEEN EUROPEAN FIRMS AND THE FIRMS OF MEDITERRANEAN PARTNER COUNTRIES

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Purpose. The main aim of this paper is to present the result of the developing research on the trend of co-operations between European firms and firms of Mediterranean Partner Countries (Algeria Egypt, Israel, Jordan, Lebanon, Morocco, Occupied Palestinian Territories, Syria, Tunisia, Turkey), from 2004 to 2008. The firms form alliances, as international strategy, if the environment and rules support their cooperation. When the economy of the country of partner is not stable, firms prefer equity alliances. The assumption is that the market integration process increases the collaborations between the firms of involved countries. The trend of flows of direct investment, in which the international strategic alliances are accounted, supports the assumption. The research question is: 'Is the Barcellona (1995) process increasing the formation of international strategic alliances between European firms and firms of Mediterranean Partner Countries?'

Design/methodology/approach. The research is an exploratory study, which analyzes data of the annual reports of the observatory of European Commission (MIPO) of the agency (ANIMA) created by European Commission to support the cooperation between countries. The data-set is the collection of equity international strategic alliances between European firms and firms of Mediterranean Partner Countries, through manual cross checks of the list of flows of direct investment in Mediterranean Partner Countries, from 2004 to 2008. The statistical analysis is descriptive and it is composed by a comparison of the equity international strategic alliances (EISA) with the risk rank of countries, and by the breakdown of trends of EISAs in every MPC with the year of agreements and the value of funds received by European Commission.

Findings. The statistical analyses show that EISA from European countries in MPCs are not influenced in a strong way by the risk of the MPCs. In Turkey, Morocco, Tunisia and Israel the EISAs are increasing. Further evidence is still to be obtained in the next steps of analysis.

Research limitations/implications. The implications of results of this study suggest topics of research that should be more inquired in literature. The entrepreneurs will be informed on the characteristics of investments in Euro Mediterranean area, thus they will take choices in the future on their business.

Originality/value. This paper contributes to develop and to understand the trends and changes of dialogue between European and Mediterranean firms in Barcellona (1995) process. The institutions will look at the work to understand the effects of their actions on enterprises and which area they have to reinforce. The entrepreneurs and management involved in an internationalization process valuating the opportunity of forming EISA.

Keywords (n. 6): equity alliances, international strategies, Euro-Mediterranean cooperation, internationalization process, European firms;

INTRODUCTION

In 1995, the Barcelona Euro-Mediterranean Ministerial Conference established an Euro-Mediterranean partnership in order to turn the Mediterranean into a common area of peace, stability and prosperity through the reinforcement of political dialogue and security, an economic and financial partnership and a social, cultural and human partnership.

The aims of Economic and financial partnership are: a sustainable and balanced socio-economic development and an improvement of the living conditions of the populations, an increase in the employment level and the encouragement of regional cooperation and integration. The ways chosen to achieve the aims are:

- the progressive establishment of a free trade area between the EU countries and Mediterranean partner countries (MPCs);
- the implementation of appropriate economic cooperation and concerted action in the relevant areas;
- a substantial increase in the European Union's financial assistance to its partners.

The Euro-Mediterranean industrial cooperation needed a specific policy on firms, so in 2004, the industry ministers of MCPs adopted the Euro-Mediterranean Charter of Enterprise. The policy dimensions¹ of the Charter are the areas of private sector that have to be improved to accelerate the cooperation between the enterprises of MPCs and Europe.

The main aim of this paper is to present the result of a conceptual analysis of a research, financed by Italian Minister of University and Research², on the trend of co-operations between European firms and firms of Mediterranean Partner Countries (Algeria Egypt, Israel, Jordan, Lebanon, Morocco, Palestinian Authorities, Syria, Tunisia, Turkey), from 2004 to 2008. The enterprises follow alliances, as international strategy, if the environment and rules support their cooperation. When the economy of the country of partner is turbulent, firms prefer equity alliances. The assumption is that the market integration process increases the collaborations between the firms of involved countries. The trend of flows of direct investment, in which the international strategic alliances are accounted, supports the assumption. Investments from European countries in MPCs are among the 50% of the total in the 2008 and the more attractive countries are Morocco with 68% inflows and Turkey with 62%, from European firms.

The research question is: 'Is the Barcellona (1995) process increasing the formation of international strategic alliances between European firms and firms of Mediterranean Partner Countries?'

¹ The ten areas of the Charter 2004 are: 1. Simple procedures for enterprises, 2. Education and training for entrepreneurship, 3. Improved skills, Easier access to finance and investment-friendly taxation, 5. Better market access, 6. Innovative firms, 7. Strong business associations, 8. Quality business support schemes and services, 9. Strengthening Euro-Mediterranean networks and partnerships, 10. Clear and targeted information for enterprises.

² PRIN2007, the project is developed jointly with other Italian Universities and the title is "Religioni, democrazia economica e cooperazione nello spazio euro mediterraneo. Partenariato e "buone prassi".

The concept is that:

- some enterprises begin to invest in emerging economies, and then the institutions of their countries support them; this support creates the opportunities for others enterprises interested in forming equity international strategic alliances, that will grow and continue forming a virtuous loop;
- on the other side, the emerging countries value the cooperation between the firms as a good opportunity of their economies and promote agreements to develop cooperation.

Leonardi (1998) analyzed a particular kind of cooperative strategies in Europe during the integration market process, he found an increase of the number of international merger and acquisitions between enterprises of countries, involved in the process, after every action of the governmental institutions to implement the process. The collaboration between firms existed, after agreements the number increased.

The degree of market integration between European and Mediterranean Partner countries is lower than in Europe, however it shows that the cooperative strategies are influenced by the integration markets actions, so this study inquiries if the agreements influence the other kind of cooperative strategies (Faulkner & Derond, 2001): the equity international strategic alliances (joint venture and minority stakes acquisitions). Although it is a conceptual paper, the descriptive statistical analysis of data on phenomenon studied is included.

The data analysis is based on the annual reports of the observatory of European Commission (MIPO) of the agency (ANIMA) created by European Commission to support the cooperation between countries. The data-set is the manual collection of equity international strategic alliances, between European firms and firms of Mediterranean Partner Countries, from the lists of flows of direct investment in Mediterranean Partner Countries. The lists describe the investments announced from firms, from 2004 to 2008. The Statistical analysis is descriptive and its composed by a comparison of the equity international strategic alliances (EISA) formed with the risk of countries, and by the breakdown of EISA in every MPC, to understand if the agreements have an impact on EISA.

In the reports analyzed, the institutions assess the regional integration policy and the records of its agreements through the breakdown of some economics data. The analysis of FDI, import/export of countries and their determinant factors shows the impact of the acts on such values in the time.

The study is structured in three sections: the literature review on international strategic alliances and on the characteristics of the firms of MPCs, the analysis of equity international strategic alliances in MCPs and the conclusion.

This paper contributes to develop and to understand the trends and changes of collaborative strategies between European and Mediterranean firms in Barcellona (1995) process. Entrepreneurs and the managerial practice will benefit in their international strategic analysis, because this study offers a global view of the relationship between European countries and MPCs on strategic alliances. The institutions will look at the work to understand the effects of their actions on enterprises and which area they have to reinforce. The research development are discussed in the conclusions.

INTERNATIONAL STRATEGIC ALLIANCES

Strategic alliances can be done with foreign partners to achieve some benefits of a global strategy (Nielsen 2003). "International strategic alliances" (ISA) are defined as international inter-company cooperative arrangements (Urban and Vendemini 1992, Lu and Burton 1998). This kind of strategic alliance is defined as a business form of cooperation between two or more industrial corporations of different countries, whereby each partner seeks to augment its competences by combining its resources with those of the other partners (Jain 1987, Lu and Burton 1998). Alternatively ISA has been defined as any form of commercial activity across national boundaries involving two or more organizations. The feature of ISAs is the "long-term" cooperation between two or more independent firms headquartered in two (bi-national) or more (multinational) countries. ISAs are different from open-market transactions, that are minimal short-term cooperation and begin and end with the exchange of any economic good between two firms. No strategic alliances may increase efficiencies for both sides, but have little potential significance to the strategic positioning of either organization (Contractor and Lorange 1988). In this study the international strategic alliances are business forms of cooperation between two or more firms of different countries and the identity of partners is not lost.

The drivers of an ISA are based on a variety of theoretical perspectives including transaction cost, resource dependency, organizational learning and strategic positioning theories (Nielsen 2003). Collusion, entry deterrence, erosion of competitors' positions or other means of augmenting market power are the more frequent incentives to collaborate between enterprises (Peridis 1992).

When a firm decides to form an ISA it has to decide the form, the object, the country and partner. The three main alliance forms are: traditional joint ventures, minority equity alliances and non-equity alliances (Contractor and Lorange 1988). They are strategic if they don't make lose the identity to the firm, for example, acquisition is not a strategic alliance (Yoshino and Rangan 1995). Traditional joint ventures are alliances with two or more partners to create a new incorporated firm in which each has an equity position and representation in the board of directors: dependent joint ventures, dominant parent ventures, dominant parent ventures, split-control ventures and shared management ventures. Minority equity alliances are similar to non-equity alliances except that one parent has taken a minority equity position in the order: passive minority equity alliance and multiple-activity minority equity alliance. Non-equity alliances are agreements between partners to cooperate in some way, but they do not involve the creation of a new firm, nor does either partner purchase equity in other: trading alliance, coordinated-activity alliance, shared- activity alliances and multiple activity alliance (Contractor and Lorange 1988). When a firm explores new opportunities, it prefers equity alliances even if it obtains less financial flexibility relative to non-equity alliances because of the feature of enterprise and its environment (Ireland, Hitt and Webb, 2006).

The object of alliance varies with the phases of the value added chain and so co-operations are R&D contracts, joint R&D, joint production, joint marketing and promotion, enhanced supplier partnership, distribution agreements, and licensing agreements. (Yoshino and Rangan 1995, Das and Teng 2000).

The choice of partner depends on goal and object of ISA, where the partner is compliant or complementary to the personality of the firm (Casson and Mol 2005).

The choice of country is oriented to the emerging markets or to developed markets, investors continue to view emerging markets as the markets where investing and making alliances. In terms of the investment locations selected as the most attractive, four of the top five countries ranked by the percentage of responses from experts are in the developing world. China is considered the most attractive location by 85%. India's ranking has increased suddenly given that up until recently, direct investment flows have been modest at best (UNCTAD 2005).

THE ENTERPRISES IN THE MEDITERRANEAN PARTNER COUNTRIES (MPCs)

The economic structure is characterized by the lack of large private enterprises, instead the small-medium enterprises and micro family enterprises are an important share, in these countries (Gallina, 2004), where the hydro-carbon sector is more developed than the others. The weaknesses of enterprises in MPCs were several when the process has begun, however the countries are working to improve the way of doing business in their countries and to support their enterprises. The MPCs are supporting the developing of enterprises to improve the social-economic context. In such cases, the economies are characterized by high level of under-economy. The aim of MPCs is to attract more international investments, they know they need to reform the private sector of enterprises to make their enterprises able to cooperate with European enterprises.

The Barcellona process monitors the implementation of policies in the ten MPCs to improve private sector of enterprises to make the results converging.

The MPCs see the Charter, adopted in 2004, as a guide for the enterprise policy, so they are engaging in reforming the ten areas indicated in the charter: 1. simple procedures for enterprises, 2. education and training for entrepreneurship, 3. improved skills, 4. easier access to finance and investment-friendly taxation, 5. better market access, 6. innovative firms, 7. strong business associations, 8. quality business support schemes and services, 9. strengthening Euro-Mediterranean networks and partnerships, 10. clear and targeted information for enterprises.

The countries involved in the implementation of charter asked to be monitored. European Commission et al. wrote a Report, in 2006, on the weaknesses of countries in which they had to improve to converge with the Charter. In 2008, the European Commission et al. edited the second Report to assess the developing of reforms in MCPs, it shows that the policies of Countries converge with the Charter, anyway Egypt, Jordan, Morocco and Tunisia are moving more rapidly, Algeria and Syria reform is at first stage, Lebanon and Occupied Palestinian Territories have made less marked progress, instead Israel is comparable to the OECD economies.

The economies of Algeria and Syria are still largely dependent on the hydro-carbon sector while private enterprise remains underdeveloped, however they started to introduce elements of enterprise policy and to give to private enterprises a driving role in economic development. (Report 2008)

The programs developed by European commission to support the enterprise development for the implementation of the industrial cooperation facilitate the way of doing business. The main programs that should increase the EISA are SME Cooperation and the Support for private sector ventures. (Report 2006)

THE INTERNATIONAL STRATEGIC ALLIANCES WITH MPCs

The industrial cooperation is one of the aims of Barcelona process and it is possible if the economies of MPCs support their policy of developing enterprises and if the MPCs assure the political stability for the investors.

The statistical analysis, in this section, is the description of phenomenon and is developed in two steps. At first the breakdown of the EISAs, formed with MPCs firms by European and non-European firms, from 2004 to 2008, is combined with the country risk rank by country. The second analysis of EISAs is for each country of MPCs to see how they change year by year, in order to the agreements.

The EISA are included in the direct flows of investment in MPCs, that are monitored by the observatory of European Commission, to understand how much the agreements are efficient. The average of European flows of investment in MPCs are the 44% from 2004 to 2008, it means that the topic is relevant for economies of the geographic areas analyzed.

In 2008, the flows inwards versus MPCs from Europe is 47% of total flows received (Figure 1). The more attractive countries are Morocco, Turkey, Tunisia and Algeria; Egypt, Syria and Israel follow them with a lower share, Jordan and Lebanon have the lower share.

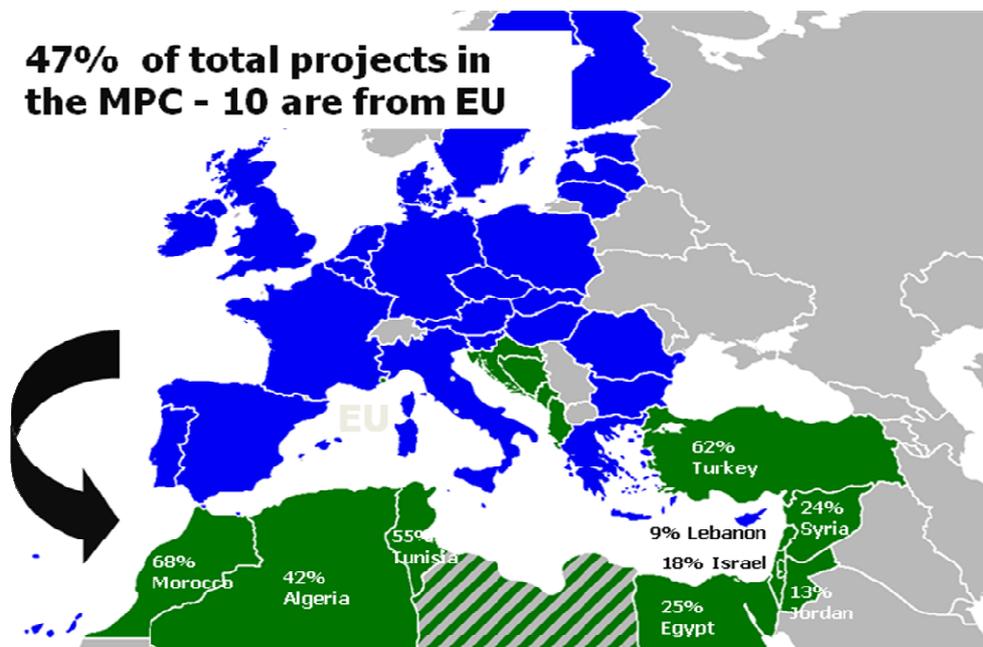
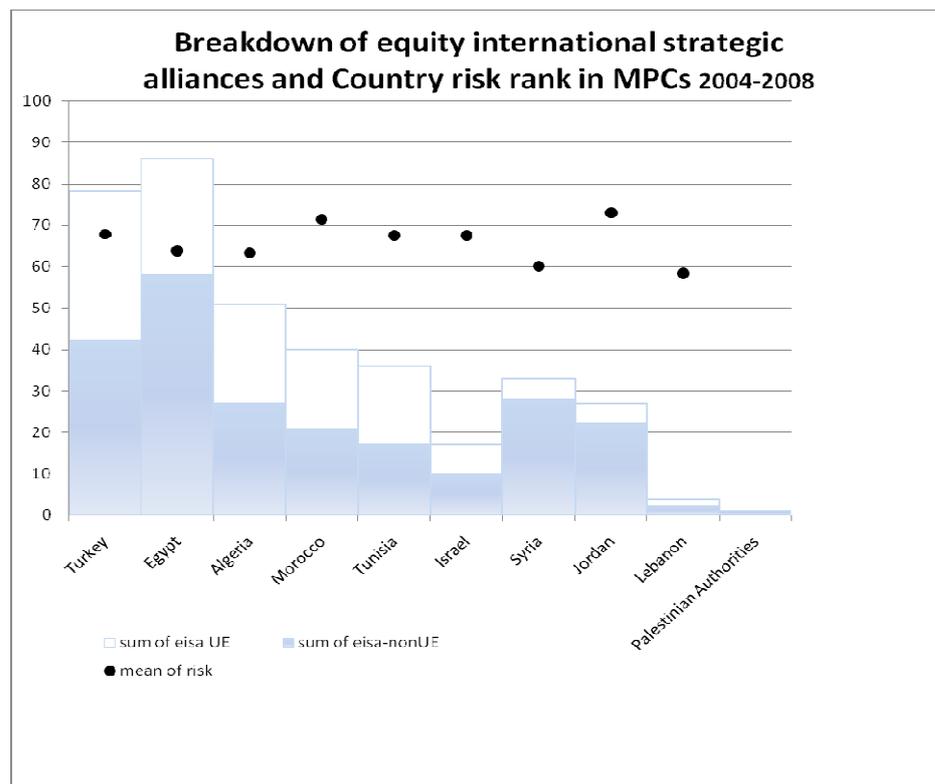


Figure 1 Share of EU-fdi in MPCs in 2008, Source: Elaboration of MIPO data

The investors can choose different kind of international investment in a foreign country. This study analyzes the joint ventures and minority acquisitions.

The graph 1 shows the number of equity international strategic alliances (EISA), from 2004 to 2008, for each country of MPCs by the European firms and the rest of the world. The risk rank³ had to explain the choice of the country of the partner. The 61% of total EISA formed, in these years, is between MPCs firms and European ones. The more attractive country for EISA is the Egypt, even if the share from Europe (n. 28 EISA) is less than the share from the rest of the world (n. 56 eisa no-Ue). Turkey, with 36 EISA, is the most attractive MPC for Europe. In these two countries, the risk explain the results, in fact Turkey, the country with lower risk, has higher number of EISA with Europe. It's not true for Algeria, Morocco and Tunisia. The number of EISA is higher in Algeria, that is riskier than Morocco and Tunisia.



Graph 1

³ The lower rank of risk show a high level of risk. Source: An Extract from International Country Risk Guide, Copyright, 1984-Present, The PRS Group, Inc.

<i>Euro-Mediterranean Association Agreements –</i>		
<i>Euro-Mediterranean Partner</i>	<i>Signed</i>	<i>In force as from</i>
<i>Algeria</i>	<i>April 22, 2002</i>	<i>September 1, 2005</i>
<i>Egypt</i>	<i>June 25, 2001</i>	<i>June 1, 2004</i>
<i>Israel</i>	<i>November 20, 1995</i>	<i>June 1, 2000</i>
<i>Jordan</i>	<i>November 24, 1997</i>	<i>May 1, 2002</i>
<i>Lebanon</i>	<i>June 17, 2002</i>	<i>April 1, 2006</i>
<i>Morocco</i>	<i>February 26, 1996</i>	<i>March 1, 2000</i>
<i>Palestinian Authority</i>	<i>February 24, 1997</i>	<i>July 1, 1997</i>
<i>Syria</i> ¹	<i>Initialed October 19, 2004</i>	
<i>Tunisia</i>	<i>July 17, 1995</i>	<i>March 1, 1998</i>
<i>Turkey</i> ²	<i>June 3, 1995</i>	<i>December 31, 1995</i>
<i>Source: European Commission. September 29, 2009</i>		
<i>¹ For Syria, signature of the association agreement is awaiting a decision of the European Council. ² The agreement signed with Turkey in June 1995 was to establish the definite phase of the customs union, for which the original agreement dates back to 1964.</i>		

Figure 2

The year of ratification of Association agreements⁴, in MPCs, is different (Figure 2), so it's necessary the breakdown in every country by year.

Figure 2 shows which countries signed the Euro-Mediterranean Association Agreements and from when it is in force, if it's in force. The agreement with Lebanon is mainly concerned with non-political aspects of trade and cooperation between the parties. Syria is waiting for the decision of the European Commission Council. Turkey, Tunisia, Israel and Morocco are the first mover and also the countries with more EISAs. Algeria has a high number of EISAs, even if it has signed late the agreement.

⁴ "The European Union concluded seven Euro-Mediterranean Association Agreements between 1998 and 2005 with the Arab Republic of Egypt, the State of Israel, the Hashemite Kingdom of Jordan, the Republic of Lebanon, the Kingdom of Morocco, the Republic of Tunisia and the People's Democratic Republic of Algeria. These agreements provide a suitable framework for North-South political dialogue. They also serve as a basis for the gradual liberalization of trade in the Mediterranean area, and set out the conditions for economic, social and cultural cooperation between the EU and each partner country". http://europa.eu/legislation_summaries/external_relations/relations_with_third_countries/mediterranean_partner_countries/r14104_en.htm

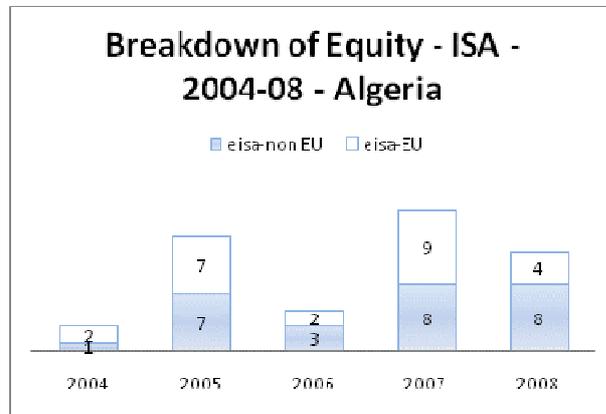
The behavior of firms can be explained by the amount of funds from the Facility for Euro-Mediterranean Finance Investment and Partnership program⁵ too.

<i>Countries</i>	<i>Finance contracts signed in the MPCs -Past 5 years in €</i>
<i>Egypt</i>	<i>1.833.343.440</i>
<i>Tunisia</i>	<i>1.497.950.000</i>
<i>Morocco</i>	<i>1.315.500.000</i>
<i>Syria</i>	<i>902.000.000</i>
<i>Lebanon</i>	<i>627.000.000</i>
<i>Israel</i>	<i>428.067.000</i>
<i>Jordan</i>	<i>186.918.138</i>
<i>Palestinean Authorities</i>	<i>55.000.000</i>
<i>Algeria</i>	<i>25.498.958</i>

Figure 3

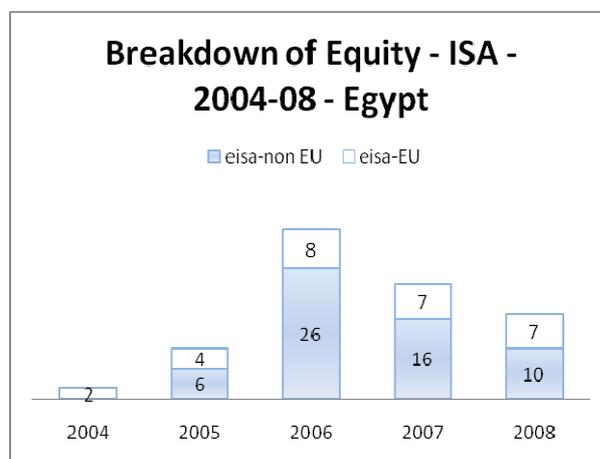
Algeria has n. 51 EISA, formed from 2004 to 2008, and the 47% with Europe. Every year the number of EISAs formed with EU and the rest of the world are among the same (graph 2), there is not a growing trend, but an up and down every year. This country signed the Euro-Mediterranean Association Agreements in 2002, and it is in force from 2005. Algeria received less funds from FEMIP Finance contracts signed in Mediterranean countries, in the past five years, of all MPCs, about 25.498.958 €.

⁵ <http://www.eib.org/projects/regions/med/> The Project Facility for Euro-Mediterranean Investment and Partnership (FEMIP) funds through Finance contracts signed in Mediterranean countries the MPCs. FEMIP brings together the whole range of services provided by the EIB to assist the economic development of the Mediterranean partner countries. Operational since October 2002, FEMIP is now a key player in the financial partnership between Europe and the Mediterranean, and has invested EUR 8.5bn between October 2002 and December 2008. As part of the European Neighbourhood Policy and of the Union for the Mediterranean, FEMIP encourages the modernization and opening-up of the economies of the Mediterranean partner countries. Activities are focused on two priority areas: support for the private sector and creating an investment-friendly environment.



Graph 2

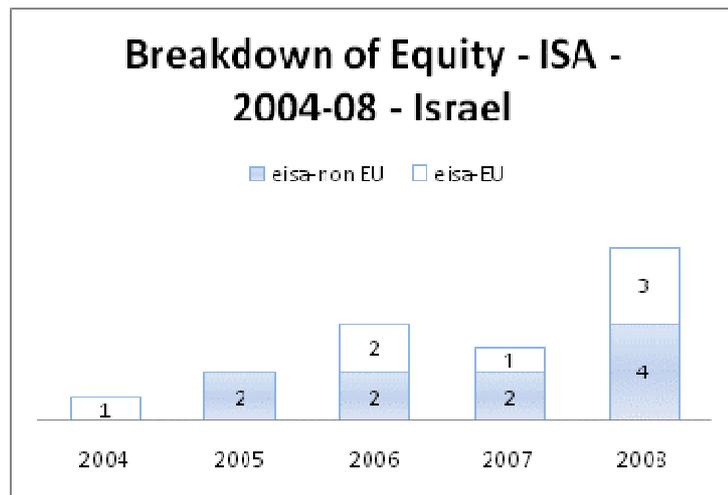
The Egypt has n. 86 EISA, formed from 2004 to 2008, and the 33% with Europe. This country is oriented to form EISAs with foreign countries, but the Europe is less attracted than the rest of the world. The trend is in decreasing (graph 3) after 2006 with the non European countries and is constant with Europe. Egypt signed the Euro-Mediterranean Association Agreements in 2001, and it is in force from 2004. Egypt is the second more attractive country of EISAs from Europe, and the country with more funds received from FEMIP Finance contracts signed in Mediterranean countries, in the past five years, of all MPCs, with 1.833.343.440 €.



Graph 3

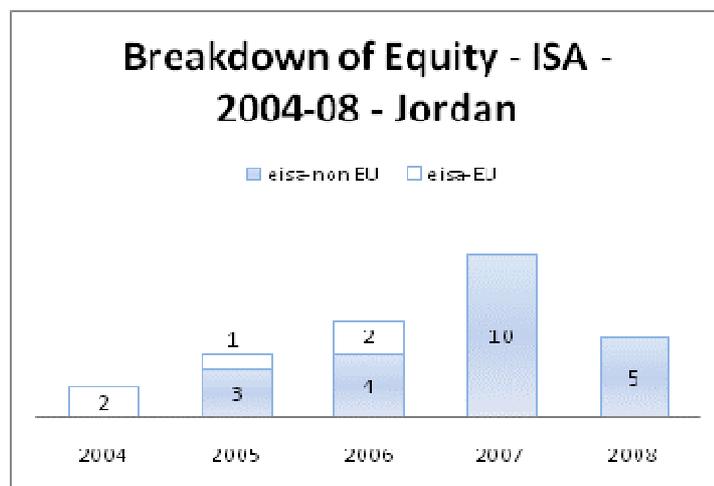
Israel has n. 17 EISA, formed from 2004 to 2008, and the 41% with Europe. The slowly growth of trend in forming EISAs (graph 4) shows that Israel is attracting foreign investments year by year and the share from Europe is increasing. Israel signed the Euro-Mediterranean Association Agreements in 1995 and it is in force from 2000. Israel is the sixth more attractive country of EISAs from Europe, and the also the sixth country for funds received from FEMIP Finance

contracts signed in Mediterranean countries, in the past five years, of all MPCs, with 428.067.000 €.



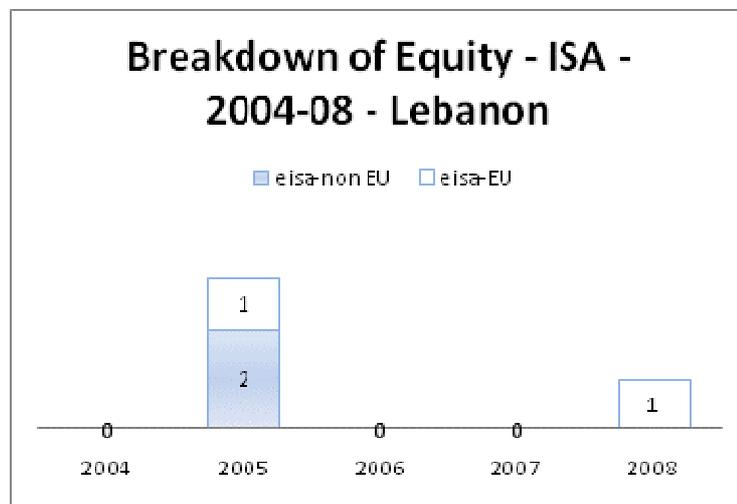
Graph 4

Jordan has n. 27 EISA, formed from 2004 to 2008, and the 19% with Europe. This country is oriented to form EISAs with foreign countries, but the share of Europe is decreased. The trend is in increasing (graph 5), except in 2008, that, however, is an year of crisis. Jordan signed the Euro-Mediterranean Association Agreements in 1997 and it is in force from 2002. Jordan is not attractive country for Europe to form EISAs, in last years, and is the seventh country for funds received from FEMIP Finance contracts signed in Mediterranean countries, in the past five years, of all MPCs, with 186.918.138 €.



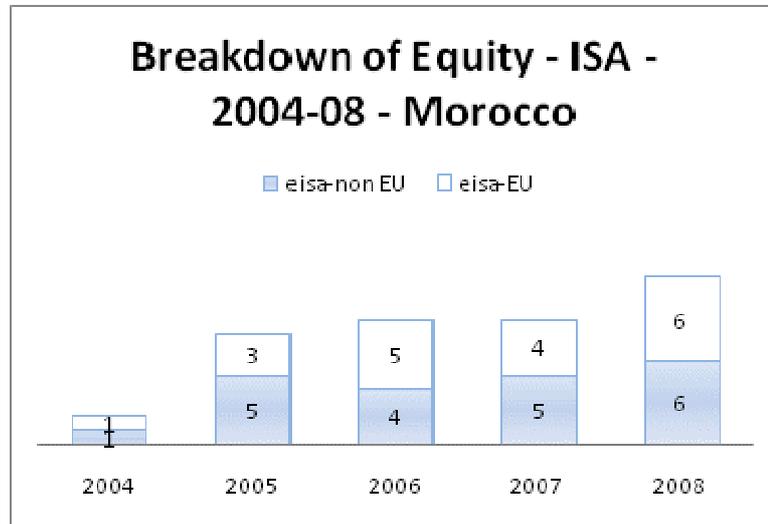
Graph 5

Lebanon has just n. 4 EISA, formed from 2004 to 2008, and the half is with Europe. This country is not oriented to form EISAs with foreign countries (graph 6). Lebanon signed the Euro-Mediterranean Association Agreements in 2002, and it is in force from 2006, and the agreement is limited on political aspects in cooperation. Lebanon is not a very attractive country for EISAs, but the agreement is enough late and is the fifth country for funds received from FEMIP Finance contracts signed in Mediterranean countries, in the past five years, of all MPCs, with 627.000.000 €, so it is interesting the evolution in next years.



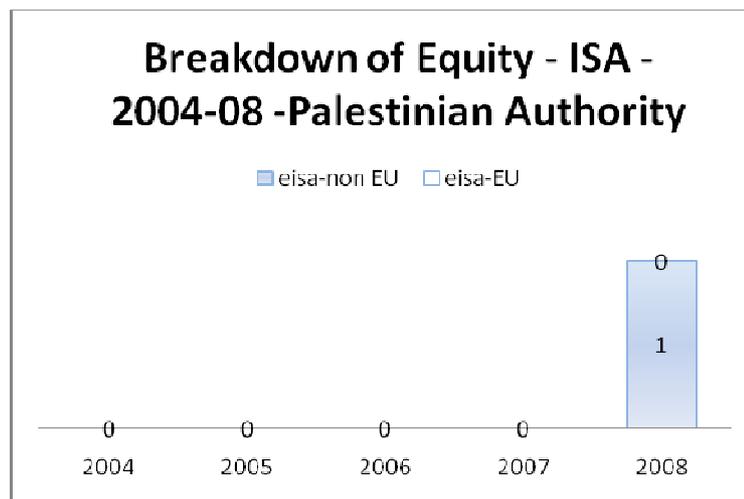
Graph 6

Morocco has n. 40 EISA, formed from 2004 to 2008, and the 48% with Europe. The clearer effect of agreements and financing is in Morocco. The growth trend in forming EISAs (graph 7) shows that Morocco is attractive and its policy is increasing, slowly, year by year the number of EISAs. This country signed the Euro-Mediterranean Association Agreements in 1996 and it is in force from 2000. Morocco is the third country for funds received from FEMIP Finance contracts signed in Mediterranean countries, in the past five years, of all MPCs, with 1.315.500.000 €.



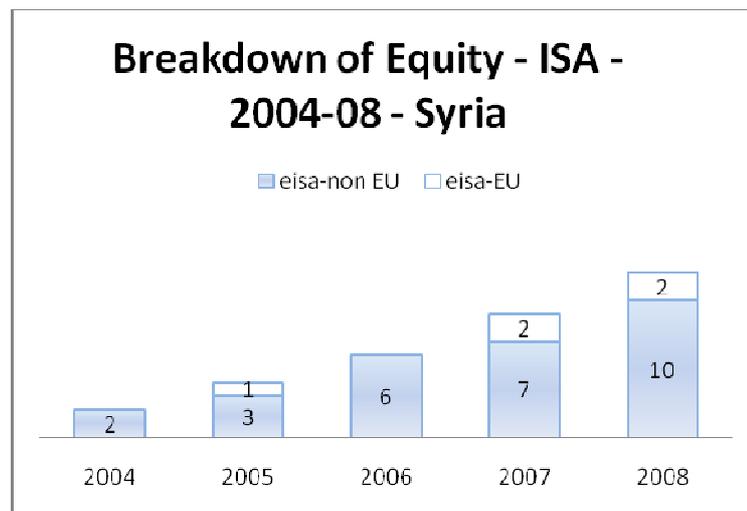
Graph 7

Palestinian Authority has only n. 1 EISA, formed from 2004 to 2008, with a non European country (graph 8). Palestinian Authority signed the Euro-Mediterranean Association Agreements in 1997 and it is in force from 1997. Palestinian Authority is not an attractive country for EISAs, even if the agreement is signed. The funds received from FEMIP Finance contracts signed in Mediterranean countries, in the past five years, of all MPCs, were 55.000.000 €.



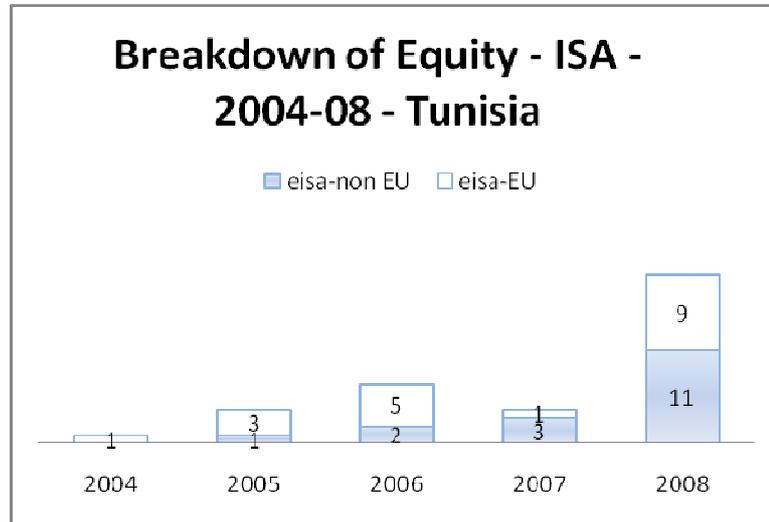
Graph 8

Syria has n. 32 EISA, formed from 2004 to 2008, and the 1,5 % with Europe. The slowly growth of trend in forming EISAs (graph 9) shows that Syria is attracting foreign investments year by year and the share with Europe is increasing, even if is low. Syria is waiting for the decision of European Commission Council to sign the Euro-Mediterranean Association Agreements. This country is the fourth one for funds received from FEMIP Finance contracts signed in Mediterranean countries, in the past five years, of all MPCs, with 902.000.000 €.



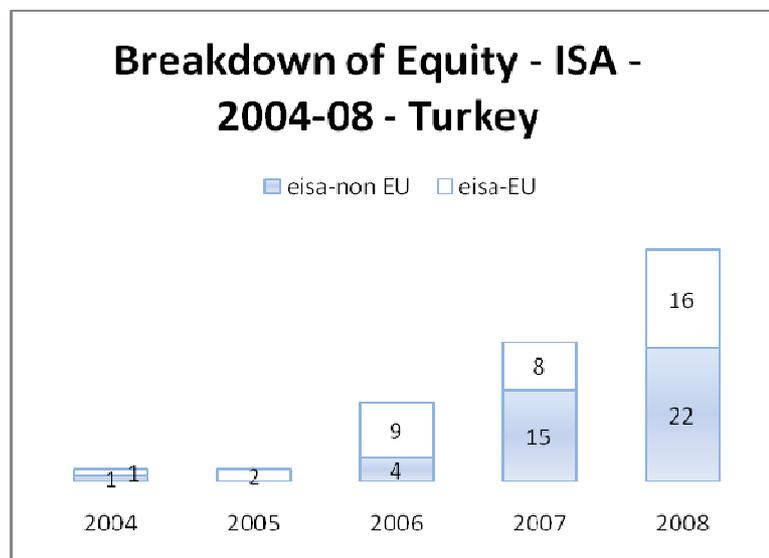
Graph 9

Tunisia has n. 36 EISA, formed from 2004 to 2008, and the 53% with Europe. The trend is a growth in forming EISAs (graph 10) shows that this country is attractive especially for Europe, despite the crisis, in the 2008 year, increased the EISAs in a significant number. Tunisia signed the Euro-Mediterranean Association Agreements in 1995, that it is in force from 1998. Tunisia is the second country for funds received from FEMIP Finance contracts signed in Mediterranean countries, in the past five years, of all MPCs, with 1.497.950.000 €.



Graph 10

Turkey has n. 78 EISAs, formed from 2004 to 2008, and the 46% with Europe. The growth is exponential and the proportion of share of EISAs with Europe is constant in the time. Turkey signed the Euro-Mediterranean Association Agreements in 1995, that it is in force from 1995. Turkey is not in the FEMIP Finance contracts program as a MPCs.



Graph 11

CONCLUSION

In most Mediterranean Partner Countries (not in Jordan), the share of EISAs with European countries is constant or is increasing, so the Process of Barcellona and the connected policies are supporting the formation of Equity international strategic alliances.

The concept is confirmed. In the geographic area studied, some European firms began to invest in MPCs countries, and then the governmental institutions of their countries support them creating the opportunities for others enterprises interested in forming equity international strategic alliances, that will grow in number. On the other side the MPCs are implementing the policies suggested by the European Commission to develop their economic structures.

EISAs are formed for a particular reason. The European firms form EISAs with MPC enterprises in a period in which the economic conditions of that country offer advantages in terms of resources. After reforms firms form an EISA to expand the market.

This approach is not only from institutional theory, because international entrepreneurship can be explained with several theories (the theory of transaction costs, resource-based view,...) and the success can be explain with the ability of firms to utilize internal resource (Zucchella, Scabini, 2007). The intent of authors is to understand the role of Institutions in forming EISAs in Barcellona Process.

The European firms form more EISAs with Turkey, Egypt and Algeria, and no evident correlation between the number of EISA and the country risk rank have been found. It's important to remember that the equity form of ISA is used in turbulent economies, so, in this case, where the countries are turbulent, the variable risk does not explain the different choice of countries. This result can suggest researchers to inquiry the relationship between the number of EISA and other variables as GDP, degree of economic freedom, ease of doing business and degree of trade openness.

The period analyzed is too short to generalize the effects of the agreements on the EISA in the market integration process. In fact the optimism of entrepreneurs after the agreement could conclude in a short time if the policies do not support the trend of growth with others actions.

The results are helpful for entrepreneurs and managers involved in international strategies and for European governmental institutions.

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DOES BANK LENDING AFFECT OUTPUT? EVIDENCE FROM AN EMERGING MARKET

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Panel of bank-level data is aggregated to test whether changes in bank loan supply affect output through the monetary transmission mechanism. Money demand shocks, money supply shocks and loan supply shocks are used as instruments in the two-stage least square/IV procedure. Results shows that shock to loan supply have large and statistically significant effects on the supply of bank loans, but money demand and supply shocks have statistically insignificant effects on aggregate economic activity. Evidence presented in the article suggests that bank lending channel exist in Jordan and that the monetary policy appear to operate through a credit channel. Economists and policy makers can use monetary policy directly to constrain the ability of banks to make new loans, making credit less available to borrowers who are dependent on bank financing. Thus monetary policy can use credit channels as a source of fluctuations in economic activity. A credit channel exists in Jordan.

JEL Classification Numbers: E32, E41, E51

Keywords: Bank lending, Money demand and supply shocks, Loan supply shocks, Credit channel.

INTRODUCTION

A large literature in recent years has focused on credit markets as playing a critical role in the transmission of monetary policy actions to the real economy. In the bank lending channel view, banks play a particularly critical role in the transmission of monetary policy actions to the real economy and play a special role in the propagation of economic fluctuations (Brunner and Meltzer (1963), Bernanke (1983), Driscoll (2004), and revived more recently by Goddard et al. (2007)).

This study presents an empirical analysis of the role of banks in the monetary transmission process in Jordan, using aggregate bank data of thirteen banks for the period 1983-2001. The structure of loan supply in Jordan is suitable for providing empirical evidence on the role of banks in the monetary transmission process. There are many small firms (borrowers) which are bank-dependent, in the sense that they are unable to readily substitute other forms of finance for bank loans and in the sense that there is a lack of close substitute for deposit liabilities on the liability side of the banking sector's balance sheet. To this point a very low fraction of corporations and banks are allowed to issue debts through bond issuing in Jordan. This fact may due to the dominance of small size firms and low capital financial institutions in Jordan with the safety and soundness as the ultimate goal of the Central Bank of Jordan (CBJ). Jordan loan market can be described as heavily bank dependent with low elasticity of substitution between different forms of loans. By this Jordan economy stands as an excellent sample to test for credit channel and to examine the role played by banks in financial markets through the monetary transmission mechanism.

These characteristics give this study a peculiarity of constructing a modified macro-model and comparing the results with those of industrialized countries to see whether bank lending channel of monetary policy do exist in emerging markets.

The independence of bank as suggested in Kashyap and Stein (1994), Bernanke (1983), Driscoll (2004), and Peek and Rosengren (1995a) have three important consequences. First, banks serves as a lending channel for monetary policy through which the monetary transmission mechanism may work (the "lending channel" of monetary policy) as well as through the conventional interest-rate channel (the "money channel")⁶. Second, bank failures may help cause recessions (see for example Bernanke (1983) for a discussion of the role of bank failures in the Great Depression and Bernanke and Lown (1991) and Peek and Rosengren (1995a,b) for a discussion of the "credit/capital crunch" in the 1990-1991 recession in the united states). Third, bank regulatory actions may be a source of monetary policy innovations (shocks) potentially as important as other Federal Funds instruments (see Peek and Rosengren (1995a)). Peek and Rosengren (1995a) show that bank lending declines after imposing formal regulatory actions on banks.

Driscoll (2004) extend the work of the Bernanke and Blinder (1988) aggregate demand model of the lending channel to the case of a group of small open economies (the U.S. states) under fixed exchange rates. Driscoll introduce state-specific shocks to money demand in order to test for lending channels. He finds that shocks to money demand have large and statistically significant effects on the supply of bank loans, but small, often negative and statistically insignificant effects of loans on output.

Others like Kashyab and Stien (2000) examined the issue that the size and the liquidity of banks is a determinate of the bank lending reaction ; where small and less liquid banks react in their lending by more than do large more liquid banks while large banks are better able to neutralize monetary shocks than small banks (i.e. they react differently).

This paper extends both the aggregate demand model of Beranke and Blinder (1988) and the Driscoll (1999) model of state specific shocks to money supply and demand. Their model is applied and extended to assume that loan supply shocks (which might be caused by Basel accords I and II of loan rating and capital requirements) are also a candidate instrument in the model. This paper shows whether bank lending channel is valid for an emerging market economy.

Bernanke and Blinder (1988) provide a modified version of a traditional IS-LM framework into which they incorporate a bank-lending channel. Bonds and money are the only two financial assets and money is assumed to pay a zero nominal interest rate. Bernanke and Blinder modify this framework by distinguishing between money, bonds, and bank loans to determine

⁶ Policy actions that affect the reserve positions of banks will generate adjustments in interest rates and in the components of the banking sector's balance sheet. Traditional models of the monetary transmission mechanism focus on the impact of these interest-rate changes on money demand and on consumption and investment decisions by households and firms where certain borrowers so dependent on bank lending that any change in bank's willingness to lend immediately affect investment and spending decisions

the interest rates on bonds and loans and the level of output for a given price level, with equilibrium in the money market, bank loans market and aggregate demand-output equality.

In our model framework extension, this article assumes that regulatory-specific shocks in the money demand and supply of loans will lead to a regulatory-specific change to money supply and therefore to output through lending channel. And since by structure of the loan market in Jordan banks are not able to readily substitute for deposits and firms do not regard bank loans and bonds as perfect substitute, the two requirement of the lending channel exists.

The recent structural changes applied on the banking minimum capital requirements and the loan and customers rating may have a negative effect on the amount of loan extended to investors and prohibits investors with good investment ideas from being granted the loans, this may have a negative effect on banks profitability since they have to reduce default risk exposure by granting loans to those with high quality credit standards. These regulatory requirements or what are known now as the Basel accord II and I. This agreement will create shocks for both supply and demand of loans and hence output. According to Basel banks have to set their minimum capital requirement according to their country and bank rating and according to the risk-return profile of the market. Emerging countries such as Jordan are ranked to have high risk weights and hence capital which will lead eventually to limit loan supply offered by its banks (i.e. a shock). The rest of the paper is organized as follows. Section 2 describes data and set assumption and discusses the empirical strategy. Section 3 reports results while section 4 concludes.

DATA, ASSUMPTIONS AND EMPIRICAL STRATEGY

Annual data on total deposits and total loans in commercial and mutual savings banks are available for the Jordan Banks for 1980 to 2001 from the special banks annual bulletins and the Central Bank of Jordan monthly and annual statistical reports. The data on loans represent the book value of all commercial and industrial loans. The relevant measure of money for this model is those components of money, which affect the ability of banks to make loans. This consists of all bank deposits or M2 less currency and travelers' checks and M1 less currency. Following this line of literature Interest rates on these deposits were obtained by dividing the interest paid out on deposits by the quantity of deposits. GDP deflator is used to deflate nominal values for all variables. Since all data are demeaned from cross-sectional averages, in practice the deflator drops out. In what follows a list of the assumptions for the construction of the model is provided:

1. Jordan is a small open economy with many banks and firms that are in the phase of changing their structure and are exposed to external money demand and supply shocks.
2. Banks are changing their minimum capital requirements.
3. It is a modified version of a traditional IS-LM framework into which they incorporate a bank-lending channel.
4. Bonds and money are the only two financial assets.
5. Money is assumed to pay a zero nominal interest rate.

6. Money supply equal money demand.
7. Income is equal to expenditures on consumption, investment, government, and net exports.
8. Firms do not regard bank loans and bonds as perfect substitutes.
9. Banks do not regard loans and bonds as perfect substitutes.

The following is an extension of both Bernanke and Blinder (1988) and Driscoll (2004) aggregate demand model of the lending channel to the case of a group of small open economies under fixed exchange rate. This article assume that Jordan is a small open economy with many banks and firms that are in the phase of changing their structure and are exposed to external money demand and supply shocks. The followings are a detailed description of the model assumptions that are identical to those by previous studies:

By assumption the condition that money supply equal money demand is still exists and may be written as in the following:

$$m_t - p_t = \gamma y_t - (r_t - r_t^d) + \varepsilon_t \dots \dots \dots (1)$$

Where y_t is income (GDP) and r_t^d is the deposits interest rate, which may vary slightly across banks⁷, ε_t represents shocks to money demand.

Income is equal to aggregate expenditures, which is divided into consumption, investment, and government spending and net exports. Assume that government spending is exogenous, and net exports a function of the constant real exchange rate and possibly output.⁸ Investment will be a function of the interest rate on bonds, r_B and the interest rate on loans r_S . Firms do not regard loans and bonds as perfect substitutes.

$$y_t - p_t = -\theta r_{Bt} - \alpha r_{St} + \kappa_t \dots \dots \dots (2)$$

Where κ_t represents other unmodelled disturbances to aggregate demand (e.g. from fiscal policy or changes in tastes).

By structure of the loan market in Jordan banks are not able to readily substitute for deposits and firms do not regard bank loans and bonds as perfect substitute, and hence loans and bonds cannot be considered as perfect substitutes in the banks portfolio, where the supply of loans can be written as follows:

$$l_t^s = -\lambda r_{Bt} + \mu r_{St} + \beta(m_t - p_t) + \vartheta_t \dots \dots \dots (3)$$

Where ϑ_t represents shocks to loan supply (e.g. the new Basel accords I and II and any new structural changes in the banking sector).

⁷ This aspect is ignored in this research.

⁸ This assumption will not make difference in our study and hence whether exchange rate float or begged, shocks still exists.

Also, by structure of the loan market in Jordan, firms do not regard bank loans and bonds as perfect substitute, i.e., Loans and bonds are not perfect substitutes in the firm's portfolio, where the demand of loans can be written as follows:

$$l_t^d = \alpha_{Bt} r_{St} - \chi r_{St} + \omega y_t + v_t \dots \dots \dots (4)$$

Where v_t represents shocks to loan demand.

To solve the problem of separating the effects occurring through interest rates on loans and bonds and hence to determine the effects of monetary shocks on output through loans, the variables in equations (1) through (4) must be demeaned to eliminate liquidity preference channel. The demeaned equations are as follows:

$$\tilde{m}_t - \tilde{p}_t = \tilde{\gamma}_t + \delta \tilde{r}_t^d + \varepsilon_t \dots \dots \dots (5)$$

$$\tilde{y}_t - \tilde{p}_t = -\alpha \tilde{r}_{Bt} + \kappa_t \dots \dots \dots (6)$$

$$\tilde{l}_t^s = \mu \tilde{r}_{St} + \beta (\tilde{m}_t - \tilde{p}_t) + \vartheta_t \dots \dots \dots (7)$$

$$\tilde{l}_t^d = -\chi \tilde{r}_{St} + \omega \tilde{y}_t + v_t \dots \dots \dots (8)$$

As was indicated by Driscoll (2004) in order to test for the monetary effect on output one must use an instrument variable since OLS is biased. Least squares regression procedure will result in estimates that are inconsistent, while instrument variables estimation process will yield unbiased parameter estimates. This situation exists because there are new variables (instrument) which is highly correlated with the independent variable and at the same time uncorrelated with the error term in the least squares equation. Driscoll used the money demand shocks as one of the instruments, this paper extends by adding money supply and loan supply shocks as other instruments in estimation

To obtain money demand and supply shocks, equation 5 is estimated for the aggregate banking data. Both M1 and M2 adjusted are used. The reason for the adjustment rely on the fact that some of the components of M2 (i.e. M1 less currency) may not offer any monetary services, which may lead equation 1 to be miss-specified, furthermore a measure of money consisting of demand deposits and savings deposits (i.e. M2 less currency)⁹ is also used.

To estimate money demand shocks:

M2 less currency:

$$\tilde{m}_t - \tilde{p}_t = \tilde{\gamma}_t + \delta \tilde{r}_t^d + \varepsilon_t \dots \dots \dots (9)$$

M2 less currency:

$$\tilde{m}_t - \tilde{p}_t = \tilde{\gamma}_t + \delta \tilde{r}_t^d + \varepsilon_t \dots \dots \dots (10)$$

⁹ The authors deduct only the amount of currency in the hand of the public and ignored the amount of time deposits since the later is reported in the CBJ statistical bulletins as one amount combined with saving deposits. This will not affect the result severely.

To estimate money supply shocks:

M1 less currency:

$$\tilde{m}_t - \tilde{p}_t = \tilde{\gamma}_t + \delta \tilde{r}_t^s + \varepsilon_t \dots \dots \dots (11)$$

M2 less currency:

$$\tilde{m}_t - \tilde{p}_t = \tilde{\gamma}_t + \delta \tilde{r}_t^s + \varepsilon_t \dots \dots \dots (12)$$

Where \tilde{r}_t^s is the demeaned interest rate on loan calculated by dividing the interest rates received on loans by the quantity of loans.

The resulted estimated equations are as follows:

(i) money demand shocks:

M1 less currency:

$$\tilde{m}_t - \tilde{p}_t = -0.014 \tilde{y}_t - 11.21 \tilde{r}_t^d + \varepsilon_t \dots \dots \dots (9)'$$

T-statistic (-0.24) (-2.61) **

M2 less currency:

$$\tilde{m}_t - \tilde{p}_t = 0.647 \tilde{y}_t - 0.196 \tilde{r}_t^d + \varepsilon_t \dots \dots \dots (10)'$$

T-statistic (9.8)* (-0.04)

(ii) money supply shocks:

M1 less currency:

$$\tilde{m}_t - \tilde{p}_t = 0.119 \tilde{y}_t - 2.25 \tilde{r}_t^s + \varepsilon_t \dots \dots \dots (11)'$$

T-statistic (1.71) *** (-1.59)

M2 less currency:

$$\tilde{m}_t - \tilde{p}_t = 0.68 \tilde{y}_t - 0.62 \tilde{r}_t^s + \varepsilon_t \dots \dots \dots (12)'$$

T-statistic (6.91)* (-0.45)

In all the equations the interest rate coefficients are not statistically significant except for money demand equation using M1. This implies that loan rates in Jordan do not signal changes in money supply.

The coefficients of income are all positive and less than one in all the equations, this implies an inelastic income to any change in money. All the coefficients of income are significant except for equation (9)'. In what follows shocks from money demand and supply will be used in the two-stage least square/IV procedure.

RESULTS

Table 1 shows a positive and statistically significant correlation between output and lending. Lagged output at first and second lag has a positive effect of 0.345 and 0.438 respectively. A result supported by the fact that economic growth is cumulative and follows short cycles of certain momentum. Contemporaneous Loan also has positive effect of 0.109. Lagged loan exert no effect. Loan supply exerted by banks affects real economic activity. This result support the view that certain borrowers, such as small businesses, are very dependent on banks for financing and suggest that disruptions in bank credit could affect economic activity.

As said before one cannot conclude from this reduced form regression whether this relationship is due to loan supply and what the magnitude of this effect are in order to determine if the effect is small or large. In order to do so shocks to money supply and demand and loan supply are used as instrument for loan supply in the second stage regression. Table 2 presents the first stage regression of loans on output and the money demand; supply and loan supply shocks using all specification of money supply (M1 and M2 less currency).

Results from Table 2 shows that in the first-stage of the two-stage least squares/IV procedure, where loan is regresses on money demand, money supply, loan supply shocks, the coefficients on the money demand and supply shocks are statistically insignificant which imply that these shock are invalid instruments and will imply that loans will not respond to shocks to money demand or money supply. But as one learn from Table 2, when loan supply shock is used as a regressor, the coefficient on the loan supply shock is statistically significant which nominate it as a valid candidate instrument in the second stage square regression. Loan will respond to shocks to loan supply but not to money supply and demand shocks. This response indicates active lending channel of the monetary transmission mechanism.

Evidence presented in table 2 suggests that bank lending channel exist in Jordan and that the monetary policy appear to operate through a credit channel.

Monetary policy makers can directly use its instruments to constrain the ability of banks to make new loans, making credit less available to borrowers who are dependent on bank financing.

Table 3 reports the results of running the regression in table 1 but using loan supply shocks as instruments. The coefficients of loans are statistically significant at 10% level, and have the same sign. They suggest that increases in growth rate of loan supply lead to contemporaneous increase in income growth. If bank lending plays a central role in the monetary transmission then fluctuations in credit availability will be a source of fluctuations in economic activity, and this actually what does table 3 show.

CONCLUSION

This paper examines the link between monetary policy or regulatory actions and the equilibrium quantity of bank loans. This paper extends both the aggregate demand model of Beranke and Blinder (1988) and the Driscoll (2004) model of state specific shocks to money supply and demand. This paper assume that regulatory-specific shocks in the money demand, supply and supply of loans will lead to regulation-specific change to money supply and therefore change in output through lending channel. And since by the structure of the loan

market in Jordan, banks are not able to readily substitute for deposits and firms do not regard bank loans and bonds as perfect substitute, the two requirement of the lending channel exists.

A panel of bank-level data is used to test whether changes in bank loan supply affect output. Money demand, supply and loan supply shocks are used as instruments. Using these shocks as an instrumental variable, this paper finds that shocks to loan supply have large and statistically significant effects on the supply of bank loans. Loans have positive and statistically significant effects on output. They suggest that increases in growth rate of loan supply lead to contemporaneous increase in income growth.

Evidence presented in the article suggests that bank lending channel exist in Jordan and that the monetary policy appear to operate through a credit channel.

Economists and policy makers can use monetary policy directly to constrain the ability of banks to make new loans, making credit less available to borrowers who are dependent on bank financing. Thus monetary policy can use credit channels as a source of fluctuations in economic activity as a source of real business cycle.

Clearly, a lot more needs to be done in this area. Further research is expected to concentrate in two major venues. First, how banks can adjust the amount and terms of business lending when monetary policy is tightened, and second, other country studies are needed to be examined to test for bank lending channels and its contemporaneous affect on real activity to draw more general results on emerging markets as apposed to developed ones.

	1983-2001
$\Delta \tilde{y}_{it-1}$	0.345 (0.03)**
$\Delta \tilde{y}_{it-2}$	0.438 (0.09)***
$\Delta \tilde{l}_{it}$	0.109 (0.06)***
$\Delta \tilde{l}_{it-1}$	-0.042 (0.50)
$\Delta \tilde{l}_{it-2}$	-0.058 (0.43)
R^2	0.072

Table 1 OLS Regressions of Output on Loans. Dependent Variable: $\Delta \tilde{y}_{it}$ All variables are demeaned. P-values are in parentheses. *, **, *** are 1%, 5%, and 10% level of significance respectively.

	1983-2001				
	<i>money demand Shocks</i>		<i>money supply Shocks</i>		<i>loan supply Shocks</i>
	M1	M2	M1	M2	L
$\tilde{\Delta} y_{it-1}$	0.524 (0.39)	0.34 (0.68)	0.0486 (0.39)	0.319 (0.70)	0.386* (0.03)
$\tilde{\Delta} y_{it-2}$	0.584 (0.25)	0.672 (0.32)	0.547 (0.21)	0.691 (0.32)	0.687* (0.01)
$\tilde{\Delta} \varepsilon_{it}$	0.045 (0.87)	-0.037 (0.84)	0.049 (0.76)	-0.035 (0.85)	0.914* (0.00)
$\tilde{\Delta} \varepsilon_{it-1}$	-0.219 (0.47)	0.017 (0.92)	-0.044 (0.85)	0.004 (0.98)	-0.129*** (0.09)
$\tilde{\Delta} \varepsilon_{it-2}$	-0.289 (0.13)	0.0172 (0.93)	-0.117 (0.52)	0.017 (0.93)	-0.152 (0.21)

Table 2 First stage instrument variables regression: loan on money demand shocks, money supply shocks, and loan supply shocks. Dependent variable: $\tilde{\Delta} l_{it}$. All variables are demeaned. P-values are in parentheses. *, **, *** are 1%, 5%, and 10% level of significance respectively.

	1983-2001
$\tilde{\Delta y}_{it-1}$	0.345560** (0.0327)
$\tilde{\Delta y}_{it-2}$	0.438435*** (0.0927)
$\tilde{\Delta l}_{it}$	0.109177** (0.0650)
$\tilde{\Delta l}_{it-1}$	-0.042112 (0.5045)
$\tilde{\Delta l}_{it-2}$	-0.058388 (0.4302)
R^2	0.0719

Table 3 Second stage of instrument variables Regression: Output on Loans Dependent Variable: $\tilde{\Delta y}_{it}$ All variables are demeaned. P-values are in parentheses. *, **, *** are 1%, 5%, and 10% level of significance respectively.

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THE LEGISLATIVE DECREE 231/2001 ORGANISATIONAL MODEL: A POTENTIAL CONTROL TOOL FOR LOCAL PUBLIC GROUPS?

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Purpose – The purpose of the paper is to ascertain whether the implementation of an organisational model similar to the model defined in Legislative Decree 231/2001 may be a valid control tool for public companies which include other shareholding companies, defined as local public groups.

Design/methodology/approach – The paper is developed, through the tracing and study of all the documentation concerning the organisational models of the subsidiaries of Comune of Turin, taken as part of the sample and the relative subsidiaries: in particular the consolidated financial statements of the group and the financial year of the relative subsidiaries, the reports about corporate governance, the organisational models in 231/01 and the codes of ethics. The study of the abovementioned documentation has made it possible, partly through a deep analysis of the scientific contributions present on the subject, to develop a questionnaire/interview to submit to the parties who act as contacts on the board of directors of the groups sampled normally identified in the Internal Audit function.

Findings – The research highlights the need to adopt specific techniques and instruments that are suitable for identifying and analysing all risks that could concern the group of local public companies. It emerges in fact that Italian local public companies invest in systems to monitor performance and compliance, trying an integrated approach at group level. The objective is in fact the transversal and exhaustive nature of risk evaluation that leads to models of group organisation that are efficient and effective. Efficient, in such a way that the costs of managing the system are less than the benefits obtained in terms of risk coverage; effective in as much the organisational models integrated at group level increase the protection of the administrative and criminal accountability of the entire company group.

An unitary organisational model thus involves an integrated internal auditing system that must be well established inside the group of public local companies.

Originality/value – The paper constitutes a first attempt to examine *The Legislative Decree 231/2001 organisational model: a potential control tool for local public groups*.

Keywords: Local public group, Auditing, organizational model of Italian Legislative Decree 231/2001, public sector

Article Type: Research paper

Field of Research: Corporate Governance and Accountability, Auditing and Assurance

INTRODUCTION

In the past only a few of the major Italian companies spontaneously adopted selfregulatory tools such as codes of corporate conduct or codes of ethics. As a reaction to national corporate scandals such as those involving Cirio and Parmalat, things started to change as the need for corporate governance reforms was felt at the institutional as well as at the corporate level.

In particular the legislative, decree 231/2001 has introduced the culture of internal checks in companies as a prevention of offences, into Italy. The regulation imposes sanctions on companies as legal entities responsible for not having prevented its employees from committing offences in the interests of the company (offences against the public administration, IT offences, offences against safety in the work place, false declarations in the financial statements etc.). These are large monetary sanctions , the closing down of businesses in the case of recidivism, prohibition against dealing with the public administration as a precautionary measure. The law does not provide for a mechanism of credits or certifications for consulting firms that should support companies in the implementation of 231; on the contrary it requires companies to take part in the organisation and to produce paper documentation showing a mapping and reengineering of internal processes, integrating them with a system of operational risk prevention and control.

In this context the central place occupied by the subject of *governance*, or rather the collection of rules and mechanisms through which the equilibrium between the expectations and the contributions of the various parties involved in the life of the company is understood. (Airoldi, 1996).

Starting from a prospective of research focused on the analysis of the characteristics and the functioning of the boards of directors and the other organs of government within corporate groups, this paper proposes a framework for the analysis of the systems of governance, with the aim of highlighting similarities/differences and models of best practices to tend towards in the choices of governance adopted by the corporate groups, with particular attention to the implementation of the organisational model provided for by legislative decree 231/01 and the influences that the same may have on the regulation of infragroup relations.

LITERATURE REVIEW

The role attributed to corporate governance in recent decades has undergone significant evolution that is effectively summed up in the following definitions: [Governance is] “the process of supervision and control intended to ensure that the company’s management acts in accordance with *the interests of shareholders*” (“Cadbury Report. The Financial Aspects of Corporate Governance”, Financial Reporting Council, United Kingdom, 1992); “the governance role is not concerned with the running of the business of the company per se, but with giving *overall direction* to the enterprise, with *overseeing and controlling*, the executive actions of management and with satisfying legitimate expectations of accountability and regulation *by interests beyond the corporate boundaries*” (Tricker 1984).

Subsequently, with specific reference to the last ten years, the theme of *corporate governance* has been the subject of great interest by management studies and a great deal of research on the characteristics of boards of directors (Daily, Dalton e Cannella, 2003) and of the control bodies and the ways in which they function.

The function of control is not the only thing the Board of Directors is accountable for. The board in fact also represents a source for the company’s legitimisation towards the outside (Hillman *et al.* 2000), which might benefit from greater ease of access to the resources through the network activated by the individual board members. Other studies (Judge and Zeithaml,

1992; Stiles, 2001) underline the contribution of the board of directors to the strategic management of the company, i.e. its function of support and consultancy, that takes its form in the participation in the strategic decision making process and in active co-operation in the definition of company strategies.

The principles of governance in the public sector are the policies, processes and structures implemented by an organisation to direct and control its activities, attain its objectives, and protect the interests of different groups of stakeholders in an ethical manner (Puddu 2006).

In order to create local public groups, in which companies (public, private or mixed) are controlled by the local "municipality", three distinctive elements are necessary, as per the following:

- *a public economic entity*; even if this does not exclude an important role for "private" companies; in particular, the entity may be a single entity or made up of an alliance of municipalities or other local entities, that in terms of territorial and political characteristics, share the production means for public utility services:

- *a number of different types of legal entity*; bearing in mind that the specific nature of the public group is that it comprises companies of a private and public nature;

- *a single financial and strategic management team*, an aspect which is typical of any group of companies, but which in this specific case is accompanied by the peculiarity of financial and strategic decisions related to the public function of the local entity.

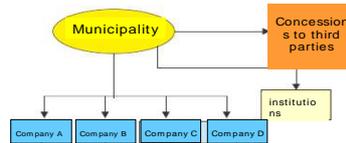
A) The Organisational Structure of the Group

The different needs and existing situations which are the basis of the creation of a local public group determine different configurations in organisational and managerial terms, which may be outlined and refer to the following three models:

- "traditional" groups;
- "mixed" groups;
- "empirical" groups.

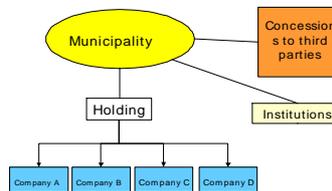
In the traditional model, the group is structured on two levels, with only one management and coordination centre where the municipality is a real holding. However, in this case there is the anomaly of a group of private companies, that work in different segments of a competitive market, that are subsidiaries of a parent company operating in accordance with the logic and administration timescales of the public sector.

Figure 1 : "Traditional" groups

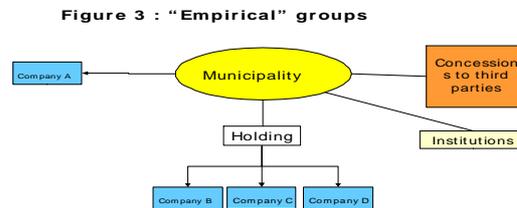


In the model which can be defined as being *mixed*, the municipality only reserves the right to act as the proprietor, while the holding has responsibility for coordination and management of subsidiaries. However, this approach is only applicable to companies limited by shares, the services provided remaining under the direct control of the entity through any other defined legal form.

Figure 2 : "Mixed" groups



In many cases groups are organising themselves as "empirical" structures, differentiating the logic of their structures not only on the basis of the type of service they provide, but also the different structures they wish the group's shareholding to take.



B) Control

The concept of control in accordance with article 2359 of the Italian Civil Code¹⁰ is not sufficient, since it would limit the units that need to be consolidated only to the companies limited by shares that the local entity has shares in.

The factors based on which it is possible to claim the existence of a control situation are the following:

- the identification of persons appointed to positions in the management organs of subsidiaries;
- a dominant influence when approving the main planning and control tools regarding corporate results;
- the ownership of voting rights that are sufficient to influence resolutions in the meetings of companies limited by shares, special companies and consortiums in which a number of local entities have shares.

The management aspect emerges along with the aspect of governance: the question is how control of the management of a municipality affects the management of the group, and whether or not the criteria used to prepare the balance sheets is uniform

The group member carries out an action with respect to the other members of the group which is variable due to the distance from the local organs set up for management purposes, the instruments employed in the exercising power of an economic nature as well as for the intensity and the direction of the influence exercised, with regard to the particular objectives to be pursued. In particular the instruments are influenced by the guidelines that mainly go through the corporate lines of governance defined by the organs, by the people involved and by the procedures that codify the guidelines into concrete managerial actions. It is scientifically and empirically proven that the corporate groups, by adopting mechanisms of communication and control that involve the management of the group, overcome the barriers placed by legal limits on individual units.

On the other hand, if we consider the better known “four dimensions of integration”¹¹, that summarise the motivational aspects correlated with the existence of a group, i.e. reciprocity, opportunism, expectations and faith, we notice that the sharing of the risk, the exchange of technologies, the rationalisation within the group have common bases of understanding for the development of the group itself (reciprocity). From another point of view, however, opportunism, according to which each subject tends to favour his own interests, it can create serious prejudices at the level of group co-ordination and expectations each entity places in the group and mutual trust. Opportunistic behaviour, regardless of the way in which it manifests itself, produces important consequences: it could induce the increase in the cost of a transaction between the companies with the risk of compromising any economy-of-scale-related benefits. The consequence is the increase in the costs of control since the companies are obliged to dedicate more energy to the monitoring of other people’s conduct. Furthermore the opportunism increases the risk of conflict while reducing the co-ordination of the group.

THE OBJECTIVE OF THE RESEARCH

The objective of the research is that of ascertaining whether the implementation of an organisational model similar to the model defined in Legislative Decree 231/2001 may be a valid control tool for public companies which include other shareholding companies, defined as local public groups.

METHODOLOGY OF THE RESEARCH

The analysis is developed, through the tracing and study of all the documentation concerning the organisational models of the subsidiaries of Comune of Turin, taken as part of the sample and the relative subsidiaries: in particular the consolidated financial statements of the group and the financial year of the relative subsidiaries, the reports about corporate governance, the organisational models in 231/01 and the codes of ethics

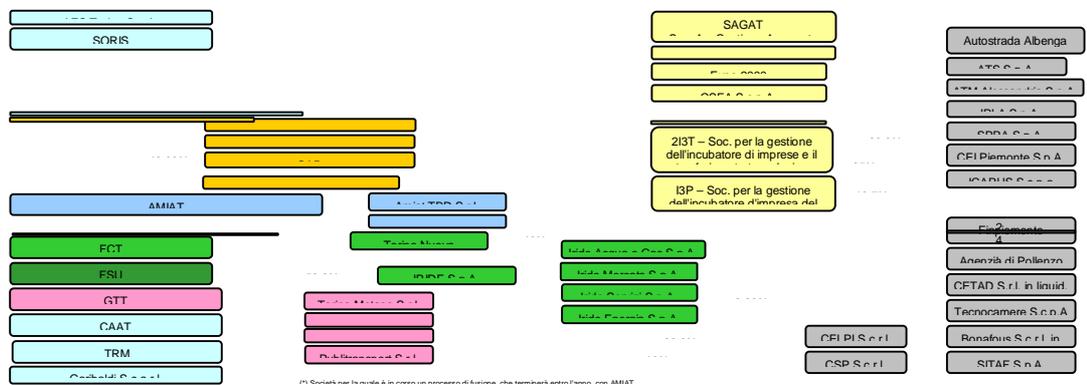
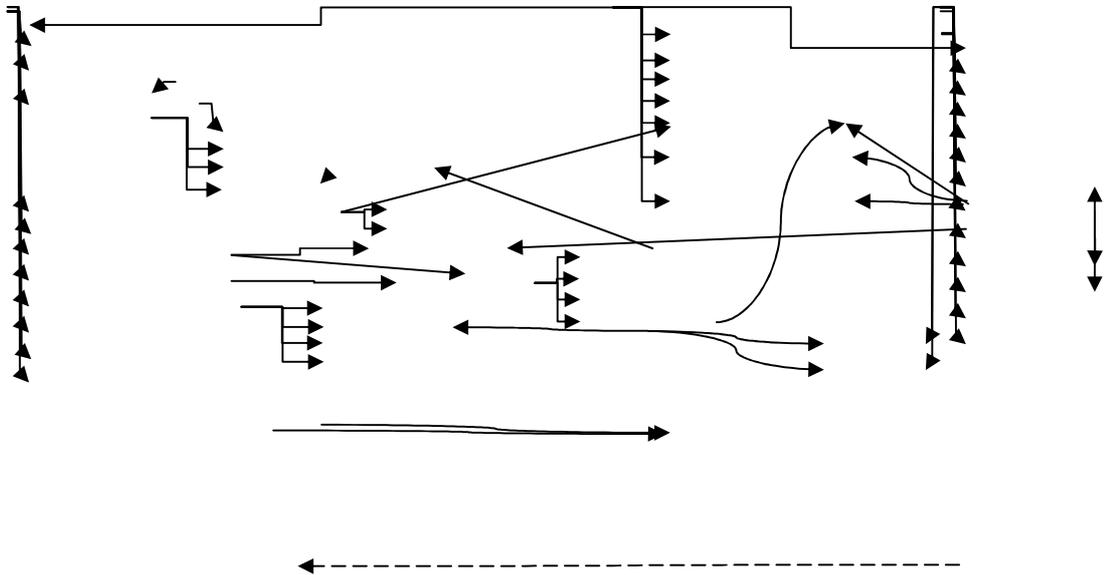


Figure 4: The sample

The study of the abovementioned documentation has made it possible, partly through a deep analysis of the scientific contributions present on the subject, to develop a questionnaire/interview to submit to the parties who act as contacts on the board of directors of the groups sampled normally identified in the Internal Audit function. The questionnaire aims at identifying and highlighting the governance-related decisions adopted by the subsidiaries of Comune of Turin, with particular attention to the organisational model provided for in legislative decree 231/01 and the influences the same may have on the regulation of subsidiaries of Comune of Turin, with regard to administrative accountability and interest of public stakeholders.

The questionnaire is organised into three sections:

- a. general information about the company ;
- b. corporate governance model;
- c. model of organisation, management and control pursuant to legislative decree n. 231/2001.

In particular the third section is structured into seven questions most of them closed:

1. Do you adopt the organisational model pursuant to legislative decree 231/2001? If not, you will?
2. Are the group's information systems uniform?
3. Is the same access to the group's information technology available to all and any of subsidiaries of Comune of Turin? Who is the party who regulates the operating procedures and the mechanisms of the group?
4. There is a responsible of the public infragroup control procedures?
5. Have you highlighted limitations and gaps in the organisational model pursuant to legislative decree 231/2001?
6. Has it been possible to highlight influences on the economic and financial situation of the individual company or the group following the implementation of the organisational model pursuant to legislative decree 231/2001?
7. If so, in what way?

100% of the sample answered the questionnaire making it possible for a sufficiently well organised analysis to be carried out.

From the questionnaire, it emerged that 88% of the companies belonging to the single groups examined adopt the organisational model 231/01

To the question regarding the possibility of regulating infragroup relations through the organisational model pursuant to legislative decree 231/2001 the answers were all the same except in one case. It, in fact, emerged how there are no clear and explicit references to

infragroup relations in the models adopted; in most of the cases, only the indication is given of the guidelines, very incomplete about the role the supervisory body should play with regard to the monitoring of a number of processes called sensitive and that involve more than one company in the group.

This gap was also indicated as a response to question eight that aimed at showing up the limitations encountered in the adoption of the said model.

Furthermore, the quality information emerging from the questionnaires relative to the institutional-, management- and governance-related aspects was later integrated with the quality information emerging from the analysis of the economical and financial documents of the reference group.

The reference sample, in 88% of cases, said it had homogenous information technology systems and certainly highlights the advantages, in economic and financial terms, in the adoption of the organisational model even if it is difficult to see.

DISCUSSION

The public sector is a typical example of a principal – representative relationship. Public entity managers – who carry out their duties as representatives of the principal – must periodically account for the manner in which they have used and managed resources to the principal, as well as to what extent the public's objectives have been achieved. An effective auditing function reduces the risks inherent in this kind of relationship. The principal relies on auditors for an independent and objective evaluation of the correctness of an agent's accounts, as well as information regarding the agent's use of resources in compliance with the wishes of the principal.

The necessity to have a third party attest to the credibility of financial reporting, profit or loss, and conformity and other criteria, is the result of many factors regarding the relationship between a principal and his agent:

1. Moral risks - conflict of interest: an agent may use resources and his authority to privilege his own interests, rather than those of the principal.
2. Distance: activities may be physically diverted from the direct supervision of a principal.
3. Complexity: a principal may not have all the necessary technical competences to control activities.
4. Consequences of errors: errors may be costly when agents manage large amounts of resources and are in charge of policies that affect citizens.

Since the success of a public administration is mainly measured by its ability to successfully provide services and carry out policies in a fair and appropriate manner, state audit functions must have the authority and competences necessary to evaluate whether public entities are carrying out their activities as planned, and if they are using their financial resources for the planned purposes in conformance with the requirements of laws and regulations. Audit activities based on verification answer the following questions: "Were policies implemented in

the same way as planned?" and "Are the managers implementing effective controls to minimise risks?".

Control activities must also be extended to companies with shares in public entities; their influence on public entities is almost always exercised with a more or less important presence on the Board of Directors.

Auditing supports the structure of governance by verifying the results of agencies and policies, in financial and operating terms, and also by examining compliance with regulations and the purpose of the organisation in question. Auditing activities also support accountability, ensuring access to information on results within and outside of organisations.

In fact, public managers are responsible for determining direction and defining objectives, evaluating risks and implementing effective controls in order to achieve objectives and prevent risks. In their role as controllers, public administration auditors evaluate and report on the results of these efforts.

The adoption of the organisational models pursuant to legislative decree 231/01 has the function of exempting the body that provides for its adoption from accountability in the commission of offences of fraud, bribery or corruption committed by its directors/employees.

And what if the company, part of a group of companies is responsible for an offence such as to involve the whole group? What are the protections of the group before the offences committed by the individual companies? Is the model pursuant to law 231/01 adopted by the single subsidiaries enough to protect the group?

There are offences for which the error of the individual involves the group. As an example it is sufficient to consider the offence of false declarations in the financial statements: if this is committed by a company in the group it follows that the reflections on the consolidated financial statements of the group are devastating. Who answers for it? In what way should the group be protected and the real culprits shown up? It is a complex mechanism of protection that must be identified in the interests of all the group's stakeholders.

The process of risk management and risk assessment must be based therefore on :

- identifying the risks of the group in relation to the offences of the subsidiaries that might be committed;
- in designing a preventative system of checking by the parent company, implemented through the construction of an adequate organisation system and the setting up of procedures for certain activities;
- in the adoption of a group code of ethics and a system of disciplinary sanctions that can be applied in the case that the measures provided for by the model are not complied with for the purpose of maintaining its effectiveness;
- in the identification of the criteria for choosing an internal control organisation equipped with the necessary functions that shall supervise the efficiency, the adequacy and the application of compliance with the model.

For the purposes of creating a risk management system, the aim is to divide the activities that pose a risk of offence for the group up into a series of procedures in order to prevent it being committed.

To activate a risk management system the company must therefore:

- map the company areas at risk
- determine the potential methods by which offenders can operate , in the areas specified above
- describe the system of controls activated and the adaptations for enhanced operation necessary.

In particular, it should be monitored the elements showing the involvement of the group can be broken down as follows:

- the systematic nature with which the people at the top of the company have had recourse to the instrument of corruption to win public contracts;
- the capacity of companies to create large availability of slush funds indispensable for being able to pay bribes to public functionaries able to influence the awarding of contract;
- the illegal management of the accounts of group companies with frequent and unjustified movement of capital between the various companies;
- the full agreement with the use of corruption by the reference shareholder;
- the serious, concrete and current danger of commissioning illicit acts of the same type as those for which proceedings are instituted.

The determination of the activities in the context of which offences might be committed presupposes an in-depth analysis of the company situation with the aim of establishing the areas that are involved in the potential cases of offence.

It is just as necessary to have an analysis of the possible ways of carrying out the said offences. This analysis must lead to an exhaustive representation of how offences can be committed with regard to the internal and external operating environment in which the company operates. In this analysis it will be necessary to take into account the history of the company – that is to say its past vicissitudes, even of a legal nature – and of the characteristics of the entities working in the same sector.

The analysis of the company's history and the corporate reality is essential for being able to determine offences that are easier to commit in the context of the company and the way they are committed. This analysis makes it possible to establish – on the basis of historical data – at which moment in the life and operations of the company risk factors are more likely to arise; what therefore are the moments in the life of the company that must more specifically be parcelled up and subject to procedures in order to be adequately and efficiently checked: for example the moment of the presentation of bids for the companies who take part in public appeals; the contacts with the competition; the methods of carrying out the contracts; the analysis of the attributes of external consultants (particularly concerning the their cost and effectiveness), the management of economic resources, the movements of money inside the group etc.

The guidelines developed by a number of associations representing companies suggest the separation of tasks between those who carry out crucial phases in the context of a process at risk, the attribution of authorising signatory powers and powers of signature coherent with the organisational and management responsibilities, the existence of a monitoring system that can indicate critical situations. It is also suggested in the specific sector of relations with the public administration, that a manager be appointed inside the company for each individual operation that falls into areas of risk, with the obligation to produce specific documentation for the activities carried out; the adoption of further internal control thresholds when being a member of a consortium or a temporary association of companies, the adoption of instruments aimed at checking the existence, not merely accounting, of the services carried out by consultants, the adoption of instruments and mechanisms that make the management of the financial resources transparent and that, in synthesis, prevent the creation – through the issue of invoices for non-existent operations, through unjustified movements of money between companies belonging to the same group, through payments for consultancy never actually supplied or if supplied, supplied at a value far below that declared by the company – hidden availability of cash. It is in fact evident that the committing of a wide variety of those offences that the compliance programs should try to impede presupposes the company's availability money that does not emerge from the official accounting and that therefore can be spent without any form of control.

The need for a group organisational model that clearly regulates the infragroup relations is clearly greater the faster the rate at which the risk is growing of offences being committed. But how must the risk be determined? Are there elements that can determine the level of criminal-administrative risk to which a group is subject?

To answer the questions referred to above, a set of variables must be taken into account that have a greater and an objective impact on the penal and administrative risk of the public holding:

- the number of subsidiaries in the group: the greater the number of subsidiaries in the group the greater the need for supervision of the infragroup actions;
- life cycle of the group: it is necessary to identify the phase of development in which the group finds itself, reconstructing the group's history
- analysis of the sector the group is part of: it is advisable to analyse the number of penal and administrative offences committed by the companies in the sector and compare them with the number of companies in the sector (the result can be called a judicial rating of the sector);
- the number of criminal – administrative priors the companies in the group have placing them in proportion to the number of companies in the group (judicial rating of the group).

The analysis of the four variables, that can be compared on the matrix leads to the determination of the group's degree of litigiousness and consequently the level of risk of being involved in administrative-penal offences pursuant to law 231/2001.

CONCLUSION

The research highlights the need to adopt specific techniques and instruments that are suitable for identifying and analysing all risks that could concern the group of local public companies.

It emerges in fact that Italian local public companies invest in systems to monitor performance and compliance, trying an integrated approach at group level. The objective is in fact the transversal and exhaustive nature of risk evaluation that leads to models of group organisation that are efficient and effective. Efficient, in such a way that the costs of managing the system are less than the benefits obtained in terms of risk coverage; effective in as much the organisational models integrated at group level increase the protection of the administrative and criminal accountability of the entire company group.

An unitary organisational model thus involves an integrated internal auditing system that must be well established inside the group of companies.

Furthermore, it becomes necessary for the public local group will have to entrust itself to an autonomous body of the company, imbued with its own powers of initiative and checking, the task of supervising the functioning and observing of the model and ensure it is updated.

With regard to this control organism this body may not be identified within the Board of Directors or group of directors without proxies; the solution proposed is that of entrusting such a task to the Internal Auditing function of the parent company. In companies of medium to large scale quoted or otherwise, the institution of this function that is an independent and objective activity of "assurance" and consultancy aimed at the improvement of the efficiency and effectiveness of the organisation.

ENDNOTES

1. C.c. 2359. Subsidiaries and affiliated companies.

The following are considered subsidiaries:

- 1) companies in which another company has the majority votes in ordinary meetings;
- 2) companies in which another company has enough votes to be a dominant influence in ordinary meetings;
- 3) companies that are subject to the dominant influence of another company because of particular contractual obligations.

For the purpose of applying numbers 1) and 2) of the first paragraph the votes that subsidiaries, trust companies and interposed persons are entitled to are also included: votes to which third parties are entitled are not included.

Companies in relation to which another company exercises a notable influence are considered affiliates. The influence is assumed to be applicable when at least a fifth of the votes, or a tenth if the company limited by shares is listed in the stock exchange, can be cast in ordinary meetings.

2. The four dimensions of integration have been theorised by A. Parche, in "Messy" research, mythological predisposition and theory development in international joint ventures, in *Academy of Management Review* 1980.

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FINANCIAL AND ECONOMIC EFFECTS OF SUBSIDIES TO INVESTEMENTS

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The aim of this paper is to investigate theoretical concepts and empirical evidence related to the effects of public subsidies on enterprises. Our findings on the performance of firms receiving public aids have been provided by means of a comparative analysis of the financial and economic situation of the selected firms considering two different points in time: before and after receiving the subsidy. The effects on investments, growth, efficiency, risks and profitability variables have been investigated.

Key Words: *Government subsidies; Efficiency; Financial performance; Empirical analysis.*

INTRODUCTION

In recent years, the importance of business incentive policies as economic development tools has been increasing throughout the world and a huge number of contributions have been proposed in the literature.

Although the usefulness of business subsidies was largely debated, there is no agreement on the effectiveness of investment incentives. On the one side there are those who are in favour of public aids to companies (Meyer-Stamer, 1996), while on the other side there are those who believe that public policies lead to inefficiencies in the economic system (Sakano and Obeng, 1997).

The objectives of public aids might include the need to improve the access of small and medium sized enterprises to obtain loans, to encourage new start-ups', to promote the adoption of new technologies or to enhance economical development in some geographical areas or sectors of the economy (Girma *et al.* 2003).

This range of objectives justifies the adoption of different methodological approaches as well as a variety of indicators for measuring effectiveness in studying the outcome of public subsidies.

The crucial issue is the evaluation of the effects on the performance of a certain number of firms who have received public grants. The literature on the topic is a well studied problem in both econometrics and statistics (Ashenfelter, 1978; Manski, 1990; Heckman and Robb, 1985; Rubin, 1973).

Among the different methods and techniques, the most used in the study of public subsidies efficiency refers to: sensitivity analyses (Rosenbaum and Rubin, 1983; Rosenbaum, 1995), instrumental variables (Angrist *et al.*, 1996; Imbens and Angrist (1994), difference-in-differences

(Heckman *et al.*, 1997), regression discontinuity design (Lee, 2001; Imbens and Lemieux, 2008). A recent review on the topics is Imbens and Wooldridge (2008).

Despite of the importance of causal effects of business incentives programs or policies, significant issues in the empirical evaluation still remain unsolved. The development of a proper evaluation system may be influenced by the availability of financial and economic information, the selection of a significant sample of assisted firms, the construction of a valid control group.

Furthermore, due to the difficulties related to the collection and storage of financial data, researchers have tended to restrict the extension of their analysis according to the data availability.

Within this framework, the aim of the present study is to explain the causal links from incentives to private firms and their performances in an economic and financial perspective. With this purpose, we analyse financial statements data of a sample of subsidized and non-subsidized firms which belong to a specific geographic area and a specific sector of activity.

In particular, focusing our attention on the grants distributed by the Law 488/1992, we limit the analysis to the touristic firms in the Campania region, one of the region in which this law intended to stimulate investments.

Our research, starting from a critical analysis of the financial statement data, aims to combine the typical financial analysis perspective with the quantitative analysis for the performance evaluation.

RESEARCH FOCUS AND RESEARCH QUESTIONS

There are different notions of subsidies provided by supranational (like the EU), national or local governments; in this research, we adopt a narrow concept, which include only monetary grants (excluding soft-loan, loan guarantee, tax break and so on), more specifically subsidies which take the form of project-related capital grants.

As previously mentioned, we have focused on the Law 488/1992. It has been the main policy instrument in the last years to enhance private investments with the further aim of downgrading gaps among the different geographical areas in Italy. Under this law, significant amounts of public money have been spent to stimulate investments¹² (Bronzini and De Blasio, 2006) in areas designated as Objective 1, 2 or 5b for the purpose of EU Structural Funds (together with some areas that do not qualify for Structural Fund support but which have been approved by the EC under Article 92(3)c). The investment projects covered by the Law 488 are:

- i) Setting-up;
- ii) Extension (projects that increase the capacity of the firm to produce its existing products or introduce new products);
- iii) Modernization (investments in innovation that increase productivity);
- iv) Restructuring (reorganization and technological renewals);

¹² From 1996 to 2003, the funds distributed to industrial enterprises amounted to €16 billion and involved 27,846 projects, mainly in the southern regions.

- v) Reconversion (adaptation of existing production facilities in order to manufacture different products);
- vi) Reactivation (takeover of unused production facilities by persons who had previously been involved in the management of the firm); and
- vii) Relocation (eligible only in cases where a transfer of the production facility is required by national or local authorities).

The ex-post impact of the law 488 have been investigated by a few authors in recent years (Pellegrini and Carlucci 2003; Pellegrini and Centra, 2006; Bronzini and De Blasio, 2006). Most contributions refer to a non specifically selected sample and the whole geographical extension of the program. In the same context, Gabriele *et al.* (2006) analyse the impact of public aids on a specific region (Trentino), highlighting the local effect of the additional investments.

We are interested in evaluating the impact of public grants related to the Law 488 in the south of Italy and specifically in the Campania region.

Our aim is to explain the causal links between incentives distributed to firms and their performances. The main research questions are:

1. Who are the firms that obtain public grants?
2. When a firm obtains public grants, what are the effects on its performance?
3. How these effects can be measured? What kind of tools should you adopt? And what indicators should you calculate?

To assess this points, we adopt an approach based on the financial statements analysis as a starting point of further empirical investigation.

National and international literature has largely debated the importance and the characteristics of financial statement analysis and there are different opinions about the capability of this approach to provide a clear picture of the status of a company (Anthony, 1966, p. 339 e ss.; Bernstein and Wild, 1993; Coda et al., 1974; Foster, 1978, p. 28 e ss.; Finnerty, 1986, p. 21 e ss., Helfert, 2000; Weston and Copeland, 1992, p. 190 e ss.).

Generally speaking, financial statements are the lens of a business, drawing a picture of a firm by translating economic factors into accounting numbers (Penmann, 2003, 17). Financial statement analysis focuses on different features of this business, organising the financial statements in a suitable way ¹³.

In more specific terms, financial statement analysis is based on different ratios, investigating the relationships among them, which highlight some aspects of the performance of a firm (Caramiello *et al.*, 2003, p. 10). This approach is also used in comparative analyses which put side by side financial statements of different firms in order to a better understanding of the economic and financial conditions of a specific company.

¹³ The accuracy of the analysis is related to the transparency and reliability of the financial statement data (Massari, 1983, 369).

Obviously, different methodologies can be used. In this paper, we adopt an approach that, even if it is mainly based on quantitative variables, it does not sacrifice the end product of the investigation. In fact, we implement a model (Coda, 1990), which has a great diffusion in Italian literature, based on four features of the business:

- Solidity;
- Profitability;
- Liquidity;
- Growth.

Using this model, it is possible to select a suitable set of financial ratios which are meaningful to the healthy ongoing of the firm, by analyzing growth, efficiency, risks, profitability and solvency of firms.

DATA COLLECTION AND EMPIRICAL ANALYSIS

Following the main finding of the empirical literature, we perform an analysis on a sample of subsidized and non-subsidized firms in order to evaluate the impact of business grants on the firms' financial and economic performance and to characterize the major differences between the two groups.

We refer to the touristic firms which have obtained subsidies under the provision of the Law 488/92 in 2002 (15th) in the Campania region.

As many authors have highlighted in different contexts related to the evaluation of financial performance (McDonald and Morris 1984, McGurr and Devaney 1998), the analysis of a specific sector of activity leads to better results compared to those obtained from a sample selected from different sectors. Therefore, in order to achieve a homogeneous sample, we restrict our analysis to the touristic sector focusing on limited companies. The choice of the touristic sector is supported by the recent interest of the local and regional authorities on its development as confirmed by different policies implemented in the last few years.

With the purpose of carrying out a comparative analysis, we consider a balanced approach choosing, for each subsidized firm, a firm that had not received subsidies but are similar in all other relevant aspects (Bergström, 2000).

We chose the year 2002 as a reference period, t , and collected financial statements one year before receiving the subsidy ($t-1$) and 4 years after (at $t+1$, $t+2$, $t+3$, $t+4$)¹⁴. Those firms that were placed under any kinds of insolvency procedures (such as bankruptcy composition with creditors, receiverships, extraordinary administration, winding-up etc.) in time $t+1$ to $t+4$ have not been included in the sample. The financial statement data for the selected firms were collected from the Infocamere database and from the AIDA database of Bureau Van Dijk (BVD).

¹⁴ Time horizon to be considered have been debated in the empirical literature; a common choice is to refer to a period of 3-4 years (Roper and Hewitt-Dundas, 2001; Venetoklis, 2000).

208 firms, belonging to the touristic sector, were included in the Law 488/92 receiving capital grants in Campania for the year 2002. Among them, we consider those companies that gained a grant greater than 100.000 euro not including 37 firms that received a lower amount.

The information provided by the financial statement of each selected firm in the period 2001-2006, will be elaborated following the financial analysis approach. This may require a preliminary revision of financial statements to allow a comparative analysis.

Generally speaking, consistency is one of the most important principles which firms have to respect in preparing their financial statements. However, in our specific case, this principle has a great importance, because Italian accounting standard n. 16 (OIC, 2005; see also IASB, IAS 20) suggests two different accounting criteria:

1. a grant relating to assets may be presented as deferred income;
2. a grant related to assets may be presented by deducting the grant from the asset's carrying amount.

Because firms, which have obtained grants under the Law 488, have adopted both methods, a preliminary revision is needed.

In the first step of our study, we perform a preliminary analysis on the data-set of the financial indicators in order to describe the main characteristics of the selected firms and investigate the behaviour of the financial indicators in the two different groups of subsidized and non-subsidized firms. In particular, we compare the initial situation of the firms, one year before the time period of receiving the subsidy and the final situation four years after receiving the aid.

This univariate preliminary analysis allows us to describe the behaviour of each indicator without taking into account the interrelations among them. A multivariate approach will also be considered in order to evaluate the overall financial performance.

The empirical results of the quantitative analysis, jointly with a judgmental process on qualitative consideration (theoretical finding on the economic effects of public aids, financial issues etc.), provide a selection of those indicators that discriminate the performance between treated and non-treated units.

In a second step of the study, a micro-econometric model will be considered in order to evaluate and compare the performance of the subsidized and non-subsidized firms.

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FORECASTING MODELS FOR DEFAULT RISK. AN EMPIRICAL ANALYSIS ON INDUSTRIAL FIRMS IN CAMPANIA

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The aim of this paper is to investigate several aspects of bankruptcy prediction within both theoretical and empirical frameworks. In particular, we are interested in analysing the predictability of default risk for industrial firms throughout the Campania region.

Multivariate classification techniques were applied to a data-set of financial statements of a balanced sample of failed and healthy industrial enterprises for a given time period. The empirical findings on the predictive power of financial ratios aim to contribute to the elaboration of efficient prevention and recovery strategies in the area of interest.

Key Words: Bankruptcy, financial ratios, forecasting failure, multivariate analysis.

INTRODUCTION

Business failure is one of the most investigated topics within corporate finance and the empirical approach to bankruptcy prediction has recently gained further attention from financial institutions mainly due to the increasing availability of financial information. In corporate failure prediction, the objective is to have a methodological approach which discriminates firms with high probability of future failure from those which are considered to be healthy. Starting from the seminal paper of Beaver (1966), that first proposes to use financial ratios as failure predictor in a univariate context, and from the following paper of Altman (1968), that proposes a multivariate approach based on discriminant analysis, a huge number of contributions have been proposed in this field (recent reviews are Balcaen and Ooghe 2006 ; Ravi Kumar and Ravi, 2007).

Even if the Multivariate Discriminant Analysis (MDA) is still one of the most used techniques, different statistical approaches have been proposed throughout the years such as logit and probit models (Ohlson, 1980; Zmijewski, 1984; Lennox, 1999), classification trees or more recently artificial neural network (Wilson and Sharda, 1994; Serrano, 1997; Charalambous *et al.*, 2000; Pérez, 2006).

Despite the popularity of the application of these classic statistical methods to corporate failure prediction, significant issues still remain unsolved, such as: the arbitrary definition of

failure, the non-stationarity and the instability of the data, the choice of the optimization criteria and the sample selection.

Due to the difficulties related to the collection and storage of financial data, researchers have tended to restrict the scope of their analysis according to the data availability. Our aim is to investigate several aspects of bankruptcy prediction in a specific area of interest – the Campania region.

Classification techniques based on the analysis of financial information for the predictions and diagnosis of the risk of bankruptcy have been applied to a balanced sample of healthy and failure industrial firms throughout the Campania region. In particular we focus on the building sector according to the economic weight that it has among the whole industrial firms operating in the area of interest.

In this current body of research, after a preliminary analysis, which focuses on investigating and selecting the predictor variables, we obtain three Linear Discriminant Functions to measure the risk in which an industrial enterprise incurs in legal bankruptcy in three, two and one year in advance. The predictive capability of the models at different time horizons has been evaluated by means of a training and a test set.

The structure of the paper is as follows. In the next session, we briefly review the main research lines in forecasting default risk. Section 3 introduces the sample characteristics and the methodological approach. The main results obtained by the empirical analysis are reported in Section 4. The final section will give some concluding remarks.

CORPORATE FAILURE PREDICTION

The empirical literature of bankruptcy prediction has attracted the interest of researchers for many years. In fact, this field is as interesting today as it was in the 30's and, during the last 70' years, a remarkable body of both theoretical and empirical researches concerning this topic has been published.

The research focus of these studies was the best prediction methods and the best failure indicators. Authors adopted different methodological approaches.

The first relevant studies were published in the 1930's and the 1940's, after the Great Depression, when numerous companies collapsed. As a consequence, the prediction of bankruptcy was considered important. In this period, Smith (1930) published a pioneering research founded on ratio analysis of 29 companies of different sectors, which failed during the 1920's. He calculated 24 ratios, even if he thought that some of them (especially: Net Earnings to Total Assets; Net Income to Net Worth; Working Capital and Fixed Assets to Total Assets; Current Ratio) were "sensitive barometers of the progress of a company".

In the same period, Fitzpatrick (1931; 1932) published two relevant studies; in the first one, he analysed 20 companies which failed during the 1920's, calculating 13 ratios; in the second study, which was an extension of the previous research, he compared the same 20 companies with other analogous thriving firms.

After these studies, Beaver (1966) published a research based on a univariate approach, which represented a fundamental step in the evolution of bankruptcy prediction models. His model was based on a paired-sample design, because «each failed firm has a non-failed “mate” ...» (p. 76); he calculated 30 ratios (whose selection was based on three criteria: popularity; ratios performed well in one of the previous studies; ratio be defined in terms of a cash flow concept), articulated in six groups: Cash Flow ratios; Net Income ratios; Debt to Total Assets ratios; Liquid Assets to Total Assets ratios; Liquid Assets to Current ratios; Turnover ratios. After the calculation of a medium value of the ratios, he used a *Dichotomus Classification Test*, based on a *cut-off point* of each ratio, to predict failure. In fact, after the division of the original sample in two sub-samples, he established the cut-off point to classify companies; then, he classified the companies of the first group by adopting the cut-off point of the second one. In this way, he chose the best predictive ratio, Cash Flow to Total Debt, which had the minimum classification error: in fact, this ratio was substantially constant for thriving companies.

The basic limit of the study of Beaver was the adoption of a univariate approach, whose main implication is that each ratio is analysed autonomously; furthermore, this research represented a fundamental point of reference for future researches.

Few years later the study of Beaver, Altman (1968) proposed one of the most well-known bankruptcy prediction models, the so-called *Z-score model*. This model was more accurate than the previous approaches because it combined the ratio analysis with a rigorous statistic approach, the multivariate discriminant analysis (MDA). The main advantage of this model was that it emphasised the correlations among ratios.

Altman analysed the financial statements of a sample of 66 companies, divided into two groups (failed and non-failed firms) and founded his research on the estimation of a linear discriminant function based on a selection of five variables.

After this pioneer study, Altman further developed his research on the topic (Altman *et al.*, 1977; Altman and Hochkiss, 2005); recently he revisited his model in a Basel 2 environment (Altman and Heine, 2002).

Following these contributions, bankruptcy prediction studies have evolved and a large number of models have flooded the literature¹⁵. In this evolution, the MDA has been the main technique used to develop predictor models during the 1960's and the 1970's; furthermore, later on few other statistics approaches have been introduced in that field such as logistic analysis and artificial neural network.

Logistic regression analysis has been used to examine the relationship between binary or ordinal response probability and explanatory variables. Ohlson (1980) was one of the first authors who used logit analysis in the context of financial distress. This approach, in line with the purpose of the discriminant analysis, assigns a weight to the independent variables and a Z score in a form of failure probability to each company included in a sample.

Neural network fundamentally implements a *function f* that maps a set of given input values x to some output values y : $y = f(x)$. It consists of a large number of processing elements, *neurons*

¹⁵ For examples of empirical analysis on bankruptcy prediction of Italian firms see Appetiti (1984); Barontini (1992); Laviola-Trapanese (1997), Foglia *et al.* (1998), Becchetti-Sierra (2003).

and the connections between them. In fact, a neural network tries to find the best possible approximation of the function f as a complex combination of elementary nonlinear functions. This approximation is designated in the neurons of the network using *weights* that are associated with each neuron (Back et al, 1997, p. 3).

A recent review of bankruptcy prediction studies from 1930 to present day (Bellovari *et al.*, 2007) shows that MDA and neural network are the most promising methods for bankruptcy prediction models. Nevertheless, even if the use of MDA has decreased (Dimitras *et al.*, 1996), it remains a generally accepted standard method; as a consequence, different authors adopt MDA analysis as a basic method and neural network as a comparative technique (for a comparative analysis of failure prediction methods see Adnan and Humayon, 2006; Laitinen and Kankaanpää, 1999).

In this first step of our research, we focus on a classical MDA approach. In the next phase, we will compare the reached results with those of other techniques such as the artificial neural network.

METHODOLOGICAL APPROACH

Sample Description

The notion of business failure has been defined in many different ways in literature and a generally-accepted definition is not easy to agree on (Crutzen and van Caillie, 2007).

In many studies, business failure is defined as a series of different situations that lead to the closing down of the firm due to relevant financial problems (Morris, 1997). However, this definition only concentrates on the financial disease without taking into account other difficulties that can affect the firms health in the early stages of the failure process (Argenti, 1976). Therefore, it is necessary to clarify the meaning of business failure to which our study refers to. In a predictive prospective, the empirical literature distinguishes between two main aspects of the definition of business failure: economic and juridical.

In this paper, we have chosen the juridical concept, focusing on those companies that have had permanent financial disease, not including companies with temporary financial problems or companies which for any reasons have voluntarily chosen liquidation.

Therefore, our sample is composed of those companies that belong to a specific sector of activity and had entered the juridical procedure of bankruptcy in Campania in a given time period, t . The information on the legal status as well as the financial information for the analysis were collected from the Infocamere database and from the AIDA database of Bureau Van Dijk (BVD).

As many authors have highlighted (Mensah 1984, Lincoln 1984, McDonald and Morris 1984, McGurr and DeVaney 1998), the analysis of a specific sector of activity leads to better results compared to those obtained from a sample selected from different sectors. In order to achieve a homogeneous sample, we restrict our analysis to the building sector focusing on limited companies.

We adopt an approach based on a balanced-sample choosing the same sample size for both classes of failure and healthy firms. The debate on the sample proportion backs up this solution for different reasons. The population proportion significantly favours active firms and so a non-balanced sample would select a reduced number of failed firms and might lead to biased estimator. In addition, the true proportion among the two conditions is not easy to calculate in practice (Cortés *et al.* 2008). However there are also reasons in favour of different choices (Back, 1997).

The predictive capability of forecasting models for default risk depends on the time horizon to be considered. Usually, the empirical literature refers to a time horizon that shifts from two to five years according to the availability of the data (Keasey *et al.* 1990; Lennox 1999; Ward and Foster 1997). In our case, we evaluate the forecasting performance of the model one, two and three years prior to failure.

We chose the year 2004 as a reference period, t , in order to have at least 4 years of “future” annual reports (at $t+1$, $t+2$, $t+3$, $t+4$) to assure that the company selected as being healthy at time t does not get into financial problems in the next four years.

In the year 2004, there were 63 failed industrial firms¹⁶ which belong to the building sector in Campania.

In order to evaluate the availability and the significance of the financial information, a preliminary screening has been performed (table 1).

For each year of interest the whole population of failed firms was classified into two groups:

1. firms that presented their financial statements;
2. firms that did not present their financial statements or presented an incomplete report (data is not suitable for the purpose of our analysis) or stopped their activity.

Group	$t-3$		$t-2$		$t-1$	
A	43	68,25 %	35	55,56%	20	31,75
B	20	31,75 %	28	44,44%	43	68,25%
Total	63		63		63	

Table 1: Failed firms sample

In our analysis, we considered only those firms whose financial statements related to the three years prior to failure ($t-1$, $t-2$, $t-3$) were available, because these firms are a “going concern” and they provide all the information needed for the building of a model for each year of interest.

For each failed firm, a healthy firm in the same sector of activity (building sector) and same geographical area (Campania) was selected. In particular, the class of healthy firms was chosen according to the following criteria:

- were still active at the end of the year 2004 (time t);

¹⁶ “Failed” status is defined on the basis of the information provided by Infocamere - Italian Chambers of Commerce.

- were not placed under different kinds of bankruptcy procedures such as composition with creditors, receiverships, extraordinary administration, winding-up etc., in the period from 2004 to the 30th July 2009;
- had not changed the company name and had not made any operations such as merger & acquisitions in the years of interest.
- had provided all the information for the three years prior to time t , ($t-1$; $t-2$; $t-3$), and the four subsequent periods ($t+1$; $t+2$; $t+3$, $t+4$).

The Predictors data-base

In literature, researchers have been using numerous different factors and indicators to forecast failure during the years. The selection of a specific set of financial indicators as independent variables is one of the main problems.

According to Bellovari *et al.* (2007), we think that higher model accuracy does not depend on an elevated number of factors and indicators. Therefore, variables to be included in the analysis have been chosen on the basis of a few different criterias: they have a relevant financial meaning in a failure context, they have been commonly used in failure predictions literature, and finally, the information needed to calculate these ratios are available.

Consequently, we consider 37 indicators as potential bankruptcy predictors (listed in table 2) that reflect different aspects of the firms' structure: Profitability, Size and Capitalization, Leverage, Liquidity, Operating structure, Turnover.

The predictor data-base for the three years of interest (2003, 2002, 2001) was elaborated starting from the financial statements of each firm included in the sample for a total of 120 financial statements.

<i>V</i>	<i>Financial Ratios</i>	<i>Type</i>
V1	<i>Sales</i>	<i>Profitability</i>
V2	<i>Net income</i>	<i>Profitability</i>
V3	<i>Total Assets</i>	<i>Size</i>
V4	<i>Shareholders' Equity</i>	<i>Size and Capitalization</i>
V5	<i>Value Added</i>	<i>Profitability</i>
V6	<i>Total debts/Total assets</i>	<i>Leverage</i>
V7	<i>Operating income/Sales</i>	<i>Operating structure</i>
V8	<i>Net Worth/Fixed Assets</i>	<i>Size and Capitalization</i>
V9	<i>Net Worth - Fixed Assets</i>	<i>Size and Capitalization</i>
V10	<i>Net Worth/Total Assets</i>	<i>Leverage</i>
V11	<i>Net Worth/Capital Stock</i>	<i>Size and Capitalization</i>
V12	<i>Net Worth/Intangible assets</i>	<i>Size and Capitalization</i>
V13	<i>Current Assets/Total Assets</i>	<i>Liquidity</i>
V14	<i>ROE</i>	<i>Profitability</i>
V15	<i>ROA</i>	<i>Profitability</i>
V16	<i>ROS</i>	<i>Profitability</i>
V17	<i>Net income/Total Assets</i>	<i>Profitability</i>
V18	<i>EBITDA</i>	<i>Profitability</i>
V19	<i>Ebitda/Sales</i>	<i>Profitability</i>
V20	<i>Net Income/Operating income</i>	<i>Profitability</i>
V21	<i>Capital Turnover</i>	<i>Turnover ratios</i>
V22	<i>Long-term Assets Turnover</i>	<i>Turnover ratios</i>
V23	<i>Current Assets Turnover</i>	<i>Turnover ratios</i>
V24	<i>Cost of debts</i>	<i>Leverage</i>
V25	<i>Total debts/Sales</i>	<i>Leverage</i>
V26	<i>Interest Charge/Sales</i>	<i>Operating structure</i>
V27	<i>Borrowing cost</i>	<i>Leverage</i>
V28	<i>Quick Ratio</i>	<i>Liquidity</i>
V29	<i>Quick Assets – Current Liabilities</i>	<i>Liquidity</i>
V30	<i>Net quick assets</i>	<i>Liquidity</i>
V31	<i>Current ratio</i>	<i>Liquidity</i>
V32	<i>Working Capital</i>	<i>Liquidity</i>
V33	<i>Accounts receivable turnover</i>	<i>Turnover ratios</i>
V34	<i>Inventory turnover</i>	<i>Turnover ratios</i>
V35	<i>Accounts payable turnover</i>	<i>Turnover ratios</i>
V36	<i>Cash Flow</i>	<i>Liquidity</i>
V37	<i>Cash flow/Sales</i>	<i>Profitability</i>

Table 2: Definition of financial indices

Forecasting methods

We apply the classical methods of Multivariate Discriminant Analysis (MDA) in order to derive forecasting models for default risk (Anderson, 2003).

The MDA is used to determine which variables discriminate between two or more pre-defined groups, which in our case are failed and non-failed companies. This is achieved by the statistical decision rule of maximizing the between-group variance relative to the within-group variance. Based on the training set, the technique constructs a set of linear functions of the predictors, the linear discriminant functions, such as:

$$\mathbf{y} = \mathbf{a}'\mathbf{X}$$

in which \mathbf{X} is the data matrix of the input variables or predictors and \mathbf{a} is the vector of discriminant coefficients.

The total deviation is given by

$$\mathbf{y}'\mathbf{H}\mathbf{y} = \mathbf{a}'\mathbf{X}'\mathbf{H}\mathbf{X}\mathbf{a} = \mathbf{a}'\mathbf{T}\mathbf{a} ,$$

which can be partitioned into two components. The within variance:

$$\sum \mathbf{y}'_i \mathbf{H}_i \mathbf{y}_i = \sum \mathbf{a}' \mathbf{X}'_i \mathbf{H}_i \mathbf{X}_i \mathbf{a} = \mathbf{a}' \mathbf{W} \mathbf{a}$$

and the between variance

$$\sum n_i (\bar{y}_i - \bar{y})^2 = \sum n_i \{ \mathbf{a}' (\bar{\mathbf{x}}_i - \bar{\mathbf{x}}) \}^2 = \mathbf{a}' \mathbf{B} \mathbf{a} .$$

The ratio to be maximising is of the form

$$\mathbf{a}' \mathbf{B} \mathbf{a} / \mathbf{a}' \mathbf{W} \mathbf{a} .$$

Each firm receives a single composite discriminant score which is then compared to an optimal cut-off value, which determines to which group the company belongs to. If their discriminant score is less than the cut-off point, they are classified as failing, whereas if their score exceeds or equals the cut-off point, they are classified as non-failing.

Two types of misclassifications can be made: a type I error is made when a failing firm is misclassified as a non-failing firm, whereas a type II error is made when a non-failing firm is wrongly assigned to the failing group.

EMPIRICAL RESULTS

Preliminary Analysis

As illustrated in the previous session, the analysis was carried out on a balanced sample of 40 companies, 20 failed and 20 healthy, 70% of which were included in the training data set used for estimating the forecasting models, while the remaining 30% were selected for the test set used for evaluating the predictive power of those models.

In order to investigate the main characteristics of failed and healthy firms, a preliminary explorative analysis has been carried out on the set of 37 prediction variables (see table 2) for the three years of interest, 2001, 2002 and 2003. As an illustration, the results of summary statistics provided separately for the two groups of firms in 2003 are shown in table A of the Appendix.

The correlation matrix has also been performed to investigate the bivariate linear relations among the variables of interest. As expected, there is evidence of strong correlation structure among some of the variables that slightly change throughout the years. A synthesis of the results has been reported in Table 4, where significant linear relation among the indicators is described. We consider as significant those correlation coefficients greater or equal to $|0.80|$, point out that correlation below that value are not harmful for an appropriate variable selection.

V	Financial Ratios	2001	2002	2003
V1	Sales	V5		
V2	Net income	V12, V36	V36	V18,V29,V30,V34,V36
V3	Total Assets	V25, V29, V33, V34	V29, V33, V34	
V4	Shareholders' Equity	V10, V12, V36	V12, V32, V36	V12
V5	Value Added	V1		V18,V36
V6	Total debts/Total assets			
V7	Operating income/Sales	V21, V23	V28, V31, V37	V28,V31
V8	Net Worth/Fixed Assets	V22		
V9	Net Worth - Fixed Assets	V32	V32	V32
V10	Net Worth/Total Assets	V4		
V11	Net Worth/Capital Stock			
V12	Net Worth/Intangible assets	V2, V4, V36	V4, V32, V36	V4
V13	Current Assets/Total Assets			
V14	ROE			
V15	ROA	V15, V16, V19	V19	
V16	ROS	V15, V19	V19	V19
V17	Net income/Total Assets			V37
V18	EBITDA			V2, V5, V29,V36
V19	Ebitda/Sales	V16	V15, V16	V16
V20	Net Income/Operating income			V33
V21	Capital Turnover	V7, V23		
V22	Long-term Assets Turnover	V8		
V23	Current Assets Turnover	V7, V21		
V24	Cost of debts			
V25	Total debts/Sales	V3, V29, V33, V37	V29, V33, V34	V33,V35
V26	Interest Charge/Sales			
V27	Borrowing cost			
V28	Quick Ratio	V31	V7, V31, V37	V31,V7
V29	Quick Assets – Current Liabilities	V3, V25, V33, V34, V37	V3, V25, V30, V33, V34	V36,V34,V2, V18, V30
V30	Net quick assets		V29	V36,V2, V29
V31	Current ratio	V28	V7, V28, V37	V7,V28
V32	Working Capital	V9	V4, V9, V12	V9
V33	Accounts receivable turnover	V3, V25, V29, V34, V37	V3, V25, V29, V34	V35,V20,V25
V34	Inventory turnover	V3, V29, V33, V37	V3, V25, V29, V33	V29,V36, V2
V35	Accounts payable turnover			V33,V25
V36	Cash Flow	V2, V4, V12, V29	V2, V4, V12	V2, V5, V18, V29,V30, V34
V37	Cash flow/Sales	V25, V33, V34	V7, V28, V31	V17

Table 4: Financial Ratios Correlation Analysis. * bivariate linear relation with $\rho \geq |0.80|$ have been reported for t-1, t-2 and t-3.

Classification Analysis

A *t-test* for the means differences has been performed in order to evaluate the capability of each variable to discriminate between the two groups, failure and healthy companies. The results (in table B of the Appendix) suggest selecting as potential predictors of the failure status the indicators for which the *t-test* rejects the null hypothesis of equal means.

However, while univariate analysis suggests specific variables as candidates for model building, in a multivariate setting it may be the case that a collective set of variables might achieve a better degree of discrimination between the two groups of firms. To avoid potential biases, therefore, we supplement our model development process with other methods of selection of the variables. In particular, we use the stepwise method to determine the final set of variables to be included in the discrimination model. The step-by-step forward selection begins with no variables in the model and at each step all variables are evaluated to determine which one will contribute most to the discriminatory power of the model, measured by Wilks' λ statistics, and have to be included in the models. In the same way, that variable which fails to meet the criterion to stay will be removed. When all the variables in the model meet the criterion to stay and none of the other variables meet the criterion to enter, the stepwise selection process stops. As a tolerance level, we chose a λ statistics greater than 0.80 to stop the iterative process (Wilkinson and Dallal, 1981; Burnham and Anderson, 2002).

In order to investigate the predictor capability one, two and three years prior to failure, we construct three Linear Discriminant Functions (LDF) at t-1, t-2 and t-3.

Starting from the first year prior to failure, we estimate a LDF with five variables selected using the stepwise procedures together with the results of the statistical screening.

The selected variables for the final model are: Total debts/Total assets, Net Worth/Total Assets, ROA, ROS, and Interest Charge/Sales. Table 6 shows correlations among these statistically significant variables that have always a correlation coefficient $\rho \leq |0.80|$ showing a low or very moderate linear relationship among them.

	<i>Total-debts/Total assets</i>	<i>Net-Worth/Total Assets</i>	<i>ROA</i>	<i>ROS</i>	<i>Interest-charge/Sales</i>
<i>Total-debts/Total assets</i>	1,00000000				
<i>Net-Worth/Total Assets</i>	0,16236934	1,00000000			
<i>ROA</i>	0,06511079	0,5206530	1,00000000		
<i>ROS</i>	0,04536724	0,5313640	0,79893733	1,00000000	
<i>Interest-charge/Sales</i>	0,06449791	0,3417647	0,50315025	0,73542205	1,00000000

Table 6: Correlation Matrix selected variables - 2003

The discriminant coefficients of the LDF estimated from the information related to the year 2003 are reported in Table 7. Using the estimated values, we obtain the discriminant score that permits us to assign each firm to the first or to the second group (failed or healthy). Repeating the process for the training and the test data sets, we obtain the classification errors for each firm. The Confusion Matrices of table 8 summarize the prediction results a year prior to failure.

	Variables	Coefficients
V6	Total-debts/Total assets	0,0003129
V10	Net-Worth/Total Assets	0,0901252
V15	ROA	0,2852788
V16	ROS	0,0143223
V26	Interest-charge/Sales	0,3248475

Table 7: Coefficients of Discriminant Function (one years before)

Actual Class	Predicted Class				
		Training set		Test set	
		Failed	Healthy	Failed	Healthy
Failed		0,50%	0,00%	0,50%	0,00%
Healthy		0,038%	0,46%	0,00%	0,50%

Table 8: Confusion Matrices – First year before failure - 2003

The second model refers to the prediction of failure two year in advance. The variable selection has been redefined for the year 2002 and the final predictors are: Net-Worth/Total Assets, ROA, ROS and Interest-charge/Sales.

Even in this case, the correlations among the statistically significant variables (Table 9) are moderate and not highlight any heavy bivariate relation among them.

	Net-Worth/Total Assets	ROA	ROS	Interest-charge/Sales
Net-Worth/Total Assets	1,00000000			
ROA	0,18285984	1,00000000		
ROS	0,02738725	0,7935961	1,00000000	
Interest-charge/Sales	0,13773304	0,5032973	0,57318249	1,00000000

Table 9: Correlation Matrix selected variables - 2002

The estimated discriminant coefficient and the results of the classification for the training and test sets are shown in Tables 10 and 11.

	Variables	Coefficients
V10	Net-Worth/Total Assets	0,0788659
V15	ROA	0,1467619
V16	ROS	0,0629249
V26	Interest-charge/Sales	0,3655981

Table 10: Coefficients of Discriminant Function (two years before)

Actual Class	Predicted Class				
		Training set		Test set	
		Failed	Healthy	Failed	Healthy
Failed		0.50%	0,00%	0,43%	0,07%
Healthy		0.038%	0,46%	0,00%	0,50%

Table 11: Confusion Matrices – Second year before failure - 2002

The same process has been done for the third year before the failure. In this case, the ROE has been included in the model instead of the ROA that was included in model 1 and 2¹⁷.

Form the correlation matrix for the selected variables (table 12), it can also be underlined that the correlation between ROS and ROE is much lower than that between the ROS and ROA for the years 2002 and 2003.

	Net-Worth/Total Assets	ROE	ROS	Interest-charge/Sales
Net-Worth/Total Assets	1,00000000			
ROE	0,16960345	1,00000000		
ROS	0,07250876	0,2256320	1,00000000	
Interest-charge/Sales	0,43155702	0,1669879	0,59017738	1,00000000

Table 12: Correlation Matrix selected variables - 2001

The discriminant coefficient estimated with model 3 and the results of the classification for the training and test sets are shown in Tables 13 and 14.

	Variables	Coefficients
V10	Net-Worth/Total Assets	0,1376484
V14	ROE	0,0131991
V16	ROS	0,4535639
V26	Interest-charge/Sales	-0,2026336

Table 13: Coefficients of Discriminant Function (three years before)

Actual Class	Predicted Class				
		Training set		Test set	
		Failed	Healthy	Failed	Healthy
Failed		0.50%	0,00%	0,50%	0,00%
Healthy		0,038%	0,46%	0,07%	0,43%

Table 14: Confusion Matrices – Third year before failure - 2001

¹⁷ It can be noticed, reading Table 4, that the ROA for the year 2001 shows strong linear relation in terms of correlation coefficient with other three indicators while the ROE does not.

The predictive performance of the LDF seems to be influenced by the forecast horizon as we can see from the predictor errors, ε_t , that slightly increase from t-1 to t-3. The results are very similar as would be expected, given the similarity in the estimated variables. However, model 1 shows better prediction accuracy in the test set confirming that the time period prior to failure is a relevant issue.

As already underlined in § 2, most of the recent papers have dealt with multi-method analyses that can lead to comparative predictive performance evaluation. Following this line, the results obtained with the LDF should be compared with some other forecasting methods in order to better evaluate the predictor power of each model. However, since our interest was focused on a specific sector of activity in the Campania region in a given period of time, the number of population units for the failed companies and, consequently, the size of the selected balanced sample does not allow to successfully apply more complex techniques such as the Artificial Neural Networks. As it is well known, the performance of such techniques should lead to better results, compared to the classic MDA, only if the sample is of a reasonable size. Therefore, a comparative predictive performance evaluation with different statistical approaches is left to further investigation.

CONCLUSION

The prediction of business failure has been largely investigated in the literature of the last decades, however many of the theoretical and empirical findings have been assessed in a general context and not often related with a specific geographic area or a small economic district. This is mainly related to the collection and storage of financial data. Actually, despite the increasing number of datawarehouse even in Italy, is still not an easy task to collect data on a specific set of homogeneous firms.

In this paper, we have investigated the determinants of bankruptcy of the building sector in the Campania region. A data-set of financial statements of a balanced sample of companies for a given time period have been analyzed by means of classical classification techniques. To select the two balanced classes of healthy and failed firms, we used the concept of legal failure to include those firms which had gone bankrupt during the year 2004. This in order to have at least four future reports to evaluate the real status of the selected firms.

The predictive power of opportunely chosen financial indicators has been assessed within a univariate and multivariate frameworks. In the current body of the research, we have started with the application of the traditional discriminant analysis. In particular, three LDF have been estimated for the diagnosis and prediction of the risk of bankruptcy one, two and three years prior to failure.

The performance of the forecasting methods leads to good quality results with a low percentage of predictor errors. Moreover, as was expected, the predictor's capability decreases as the time horizon increases.

Overall, while the reached results show that the models achieve classification accuracy, empirical evidence of the screening analysis of the financial information suggests more than one issue that requires further investigation. The accuracy of the prediction models may be enhanced including non-financial predictors as well as considering the time as a relevant factor

switching from a static to a dynamical model. These issues together with the mentioned comparison analysis will be the purpose of a future study.

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APPENDIX

V	Failed firms			Healthy firms		
	Mean	Median	S.D.	Mean	Median	S.D.
V1	792.347,3	220.906	1.058.740	3.055.227	2.487.066	1.750.562
V2	-295.218	-147.88,5	989.390	49.215,25	33.499	74.433,49
V3	1.841.581	586.086	4.512.324	3.590.066	2.162.368	3.638.613
V4	-290.419	-53.662	827.898,2	891.103,2	404.518	1.426.189
V5	11.515,91	47.301	895.216,5	807638,5	693.593	451.347,8
V6	12,529	-0,785	29,631	6,861	6,700	4,007
V7	-207,546	-1,645	684,012	5,422	1,880	9,832
V8	-2,819	-0,690	18,368	1,442	1,365	1,131
V9	-422.615	-163.716	881.550,2	-489.516	59.526	1.653.350
V10	-0,496	-0,125	1,164	20,046	14,980	11,644
V11	1.238,079	-2,895	5.560,973	11,399	4,520	19,809
V12	-305.774	-80.957	830.089,3	883.788,7	394.740	1.424.541
V13	0,834	0,900	0,196	0,738	0,760	0,204
V14	-0,488	0,295	4,382	10,057	6,245	15,381
V15	-0,293	-0,055	1,087	4,646	3,910	2,960
V16	-0,308	-0,060	0,848	4,288	3,510	2,561
V17	-0,317	-0,046	1,028	0,020	0,013	0,027
V18	-196.375	-18.045	874.970,8	220.856,3	196.916	140.229,8
V19	-0,264	-0,040	0,852	7,383	6,535	4,076
V20	-0,412	0,975	5,032	0,829	0,220	1,832
V21	0,852	0,585	1,253	1,486	1,070	1,444
V22	7,204	7,290	4,655	11,279	6,475	14,117
V23	1,8625	0,750	5,012	1,604	1,410	0,759
V24	0,0275	0,0200	0,0265	0,035	0,020	0,046
V25	3,54	2,0750	5,1883	0,840	0,690	0,613
V26	0,0655	0,0450	0,0706	2,942	2,345	2,489
V27	15,696	11,965	19,0385	11,117	10,835	3,733
V28	2,046	0,4100	7,0443	1,024	0,725	0,795
V29	-1436105	-250590	5.102.050	-477.050	-274.382	1.241.802
V30	-476006	-45937	1.091.397	-382.529	-345.716	440664,7
V31	2,307	0,8750	6,9814	1,452	1,2100	1,1885
V32	-156822	-122734	683123,7	214730	173346	1016402
V33	770,3185	212,92	2027,019	174,8835	175,39	117,4372
V34	234,5315	85,22	522,3183	65,1095	61,92	50,7723
V35	1167,187	372,53	1890,98	262,062	261,0	83,2209
V36	-271691	-14137	983672,1	145857,2	136396	104396,7
V37	-0,299	-0,01975	0,8288	0,0513	0,04155	0,0353

Table A: Summary Statistics* for the two groups of failed and healthy firms. *The statistics refer to the 2003 data-base.

V	2001		2002		2003	
	<i>t-test</i>	<i>p-value</i>	<i>t-test</i>	<i>p-value</i>	<i>t-test</i>	<i>p-value</i>
V1	-5,84149	0,00000*	-5,17597	0,00001*	-4,94661	0,00002*
V2	-1,77042	0,09084	-2,82877	0,00809*	-1,55248	0,13686
V3	-0,65679	0,51694	-0,51797	0,60873	-1,34897	0,18569
V4	-1,80326	0,08668	-2,46306	0,02303*	-3,20419	0,00317*
V5	-4,11228	0,00022*	-3,18586	0,00288*	-3,55128	0,00138*
V6	1,6686	0,11083	1,13407	0,27086	0,84782	0,40672
V7	0,93769	0,36016	0,95729	0,35044	-1,39226	0,17992
V8	0,90223	0,37811	-0,69202	0,49711	-1,03563	0,31328
V9	0,13819	0,89136	-0,74852	0,46239	0,15968	0,87424
V10	-5,35512	0,00004*	-5,37841	0,00003*	-7,85038	0,00000*
V11	-1,88756	0,06872	-1,52914	0,14190	0,98649	0,33629
V12	-1,73177	0,09897	-2,45714	0,02332*	-3,22662	0,00298*
V13	0,36683	0,71596	1,08596	0,28510	1,51610	0,13778
V14	-2,43945	0,02451*	-1,00229	0,32855	-2,94877	0,00741*
V15	-5,85992	0,00001*	-5,82337	0,00001*	-7,00582	0,00000*
V16	-5,48932	0,00002*	-3,65802	0,00130*	-7,61968	0,00000*
V17	-0,60013	0,55488	-1,73927	0,09800	-1,46607	0,15896
V18	-4,52171	0,00008*	-2,3045	0,02682*	-2,10567	0,04809*
V19	-7,15469	0,00000*	-5,70244	0,00001*	-8,21277	0,00000*
V20	0,53452	0,59611	1,201	0,2404	-1,03639	0,31037
V21	0,28422	0,77896	-0,57899	0,56640	-1,48404	0,14621
V22	0,56415	0,57824	1,17604	0,25374	-1,22579	0,23264
V23	0,94638	0,35583	0,86575	0,39734	0,22807	0,82192
V24	1,00007	0,32984	-0,1918	0,84894	-0,59104	0,55887
V25	1,02373	0,31882	1,35379	0,19169	2,31081	0,03190*
V26	-4,60456	0,00007*	-3,95529	0,00042*	-5,16682	0,00005*
V27	0,37708	0,70934	1,28817	0,21077	1,05539	0,30355
V28	0,84332	0,40950	0,64666	0,52533	0,64504	0,52642
V29	-0,72928	0,47424	-1,09932	0,28445	-0,81680	0,42311
V30	-0,42313	0,67460	-0,72503	0,47479	-0,35518	0,72543
V31	0,9204	0,36886	0,64096	0,52896	0,53993	0,59518
V32	-0,09418	0,92575	-1,21993	0,23648	-1,35684	0,18397
V33	1,04724	0,30812	1,01939	0,32080	1,31149	0,20522
V34	1,00871	0,32579	1,00815	0,32605	1,44380	0,16478
V35	0,67561	0,50407	1,24282	0,22830	2,13853	0,04563*
V36	-2,30517	0,03149*	-2,88384	0,00693*	-1,88773	0,07409
V37	-1,02729	0,31605	0,37261	0,71341	-1,88829	0,07430

Table B: *t*-test statistics for means differences and *p*-value ($\alpha=0.05$). *value of the test that reveals significant mean differences are indicate with a star.

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ACQUISITION-BASED DYNAMIC RECONFIGURATION CAPABILITIES

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Purpose: The success of knowledge acquisitions is dependent upon firm's ability to integrate knowledge-based resources and thus share knowledge, in order to innovate. Regardless of the increasing number of knowledge acquisitions, however, an understanding of how successful firms direct their knowledge sharing activities remains absent. This paper argues that acquisition-based dynamic reconfiguration capabilities can be seen as a distinctive knowledge integration ability of successful firms. The purpose of this paper is, therefore, to reveal the underlying mechanisms and practices that act as micro-foundations of such dynamic capabilities, in order to understand how to manage more successful knowledge acquisitions.

Design/methodology/approach: The approach of this research is to review the literature while addressing two questions: 'which mechanisms and practices enable post-acquisition knowledge sharing' and 'how can these mechanisms and practices enable the creation of acquisition-based dynamic reconfiguration capabilities in order to enable more successful knowledge acquisitions.'

Findings: Three propositions regarding the micro-foundations of acquisition-based dynamic reconfiguration capabilities are given. First, the more frequent interaction the practices used entail the more tacit knowledge will be shared. Second, the more acquisition-experience the firm has the more positive the effect of using IT-based mechanisms and procedures for sharing explicit knowledge will be. Third, having acquisition-specific functions, especially those with a focus on HR-incentives, will affect post-acquisition knowledge sharing in a positive way.

Originality/value: This study is, to our knowledge, one of the first that focuses on the underlying mechanisms and practices that affect post-acquisition knowledge sharing and thus the micro-foundations of acquisition-based dynamic reconfiguration capabilities.

Article type: Conceptual paper

Keywords: knowledge-based view, knowledge acquisition, knowledge sharing, micro-foundations, dynamic capabilities.

INTRODUCTION

Powerful determinants of firm actions and outcomes are unique firm-level capabilities (Eisenhardt and Bird-Schoonhoven, 1996). This view which emphasizes firm-level heterogeneity characterizes broadly the resource-based view of the firm (Eisenhardt and Schoonhoven, 1996). According to the resource-based view, firms are compositions of resources which could create a competitive advantage if they sustain a resource position barrier¹⁸ (Wernerfelt, 1984). In order

¹⁸ Resource position barrier is defined as a situation in which "a holder of a resource is able to maintain a relative position vis-a-vis other holders and third persons, as long as these act rationally. That is, the fact that someone already has the resource affects the costs and/or revenues of later acquirers adversely. In these situations the holder can be said to enjoy the protection of a resource position barrier" (Wernerfelt, 1984).

to create such competitive advantage these resources must be scarce, valuable, and reasonably durable (Spender, 1996). Or have the so-called VRIN attributes, which is being valuable, rare, inimitable, and nonsubstitutable (Eisenhardt and Martin, 2000). These resources, tangible or intangible (Wernerfelt, 1984) such as e.g. technical know-how and capital, can be defined as the strengths, advantages, or assets of the firm (Eisenhardt and Schoonhoven, 1996).

The degree to which a firm sustains its competitive advantage depends on other firms' ability to acquire the resources needed to set off a competitive offensive (Grant, 1996). Sustaining competitive advantage, therefore, requires idiosyncratic and not easily transferable resources (Grant, 1996). Increasing competition among high-technology¹⁹ firms has shifted the source of competitive advantage for these firms from tangible resources and market power to intangible resources such as knowledge and know-how (Collins and Smith, 2006). Therefore, knowledge acquisition, defined by Huber (1991) as the process of obtaining knowledge, has become an increasingly important way for technology-based companies to gain access to new knowledge and capabilities. These firms usually apply the resource-based acquisition strategy of 'related complementary' with the primary objective of getting resources that combine effectively with those currently held (Wernerfelt, 1984). More specifically, these firms are interested in knowledge-based resources, and therefore, apply the knowledge transfer strategy which is mentioned by Ranft and Lord (2002).

It is particularly in the high-tech²⁰ industries that companies buy other, often smaller, companies in order to gain new knowledge and capabilities and thus participate in knowledge acquisitions. Technological complexity, the importance of specialized skills and expertise, fast-paced technological change, and knowledge-based resources' breadth and depth, trigger firms to engage in knowledge acquisitions with the primary objective of knowledge transfer; the acquisition and utilization of new sets of knowledge-based resources (Ranft and Lord, 2002). Knowledge, especially tacit²¹, being idiosyncratic and not easily transferable, therefore, has become the most strategically-important resource which firms possess (Grant, 1996). The knowledge-based view of the firm, an outgrowth of the resource-based view of the firm (Cloodt, 2005), emphasizes this. According to the knowledge-based view, organizations are dynamic, evolving, quasi-autonomous systems of knowledge creation and application (Spender, 1996). Creating knowledge requires individuals to specialize in specific areas, while applying it, in order to produce goods and services, requires bringing together many areas of specialized knowledge (Grant, 1996) and thus the sharing of knowledge. Since knowledge is the most

19 In line with Collins and Smith (2006) who use the definition of high-technology firms given by Milkovich (1987), high-technology firms are identified as companies that "emphasize invention and innovation in their business strategy, deploy a significant percentage of their financial resources to R&D, employ a relatively high percentage of scientists and engineers in their workforce, and compete in worldwide, short-life-cycle product markets" (p.80).

20 According to Ranft and Lord (2002), these industries include biotechnology, computer equipment, computer software, computer services, electronics, and telecommunication.

21 In the following section an explanation regarding different types of knowledge will be given.

strategically-important resource residing among organizational members, the integration of individuals' specialized knowledge becomes the essence of a firm's capability (Grant, 1996). This integration takes place through the use of certain practices and mechanisms aimed at sharing knowledge. Within the context of knowledge acquisitions this integration of knowledge, therefore, is one of the main objectives since knowledge acquisitions' success is dependent upon firms' ability to integrate knowledge-based resources and thus share knowledge, in order to innovate. Hence, given that most valuable resources are knowledge-related, coordination and integration of such resources creates nonreplicable value in the market (Teece, 2007).

This paper, being a part of an empirical research in progress, argues that in the context of knowledge acquisitions, acquisition-based dynamic reconfiguration capabilities which is concerned with post-acquisition knowledge integration is the needed ability that organizations must possess in order to have successful knowledge acquisitions. The purpose of this paper is, therefore, to reveal the underlying mechanisms and practices that act as micro-foundations of such dynamic capabilities which successful firms possess. Specifically, this paper aims to understand how firms can build such dynamic capabilities and thus manage more successful knowledge acquisitions. Through reviewing the literature, in order to creating a foundation for the subsequent empirical research, two questions are addressed: 'which mechanisms and practices enable post-acquisition knowledge sharing' and 'how can these mechanisms and practices enable the creation of acquisition-based dynamic reconfiguration capabilities in order to enable more successful knowledge acquisitions.' This insight is useful given that most acquisitions fail to meet expectations (Barkema and Schijven, 2008, Hayward, 2002). Puranam et al. (2003) have in fact demonstrated that failure rates in high-tech acquisitions may reach between 60 to 80 percent, figures which would indicate an absence of organizational acumen. Apparently, acquiring a firm does not guarantee that valuable knowledge will be successfully shared. Thus, value creation through acquisitions is extremely difficult (Inkpen et al., 2000) or does not take place at all (Meschi and Metais, 2006). Given that acquisitions usually have implementation and post-acquisition performance problems (Vermeulen and Barkema, 2001), creating an understanding regarding the micro-foundations of post-acquisition knowledge sharing processes is, therefore, vital. Furthermore, by revealing the micro-foundations of acquisition-based dynamic reconfiguration capabilities, this paper aims to make a contribution to the literature of the strategic management field and more specifically the literature of the knowledge-based view of the firm, in order to help understand how the process of knowledge sharing within knowledge acquisitions takes place. Thus, regardless of the contributions made until now, an understanding of the salient futures of knowledge sharing processes has remained absent in the literature (Foss, 2007).

In the next sections, first, dynamic capabilities will be discussed. Second, an explanation of organizational knowledge will be given. Third, different ways of managing organizational knowledge will be discussed along with their epistemological perspectives. After that, most appropriate mechanisms and practices for knowledge sharing in order to create acquisition-based dynamic reconfiguration capabilities will be given along with a number of propositions. Finally, some concluding remarks are mentioned.

DYNAMIC CAPABILITIES

In dynamically-competitive environments such as the high-tech industries, maintaining superior performance requires constantly renewing competitive advantage through innovation and development of new capabilities (Grant, 1996). In order to explore the dynamic aspect of knowledge creation and application, Kogut and Zander (1992) have introduced the concept of combinative capability²² which emphasizes the importance of synthesizing and applying current and acquired knowledge for the enhancement of innovation. Extending the idea of combinative capability, Grant (1996) mentions that deploying and extending a continuing core of capabilities, is what leads to continuous innovation in dynamically-competitive environments. This means, achieving flexibility in knowledge integration in order to creating dynamic capabilities which, according to Grant (1996), for many, are the solution to the problem of sustaining competitive advantage in dynamically-competitive environments.

According to Teece et al. (1997), 'dynamic capabilities' refers to two aspects of an ability of the firm. In this definition the term 'dynamic' refers to the renewing capacity of firms regarding their competences in order to deal with dynamically-competitive environments. 'Capabilities' refers to the key role of strategic management in properly adapting, integrating, and reconfiguring internal and external competences to react on dynamically-competitive environments. Teece et al. define dynamic capabilities as 'the firm's ability to integrate, build, and reconfigure internal and external competences²³ to address rapidly changing environments' (1997). Helfat et al. define dynamic capabilities as 'the capacity of an organization to purposefully create, extend, or modify its resource base' (2007). Dynamic capabilities could be seen as a meta-competence which goes beyond operational competences enabling firms to, not just inventing, but also innovating profitably (Teece, 2007). Dynamic capabilities enable firms to achieve evolutionary fitness which is enabling the firm to make a living (Teece, 2007). Taking into account that sustaining competitive advantage in dynamically-competitive markets has been seen as unlikely (Eisenhardt and Martin, 2000), having dynamic capabilities could enable firms to sustain their competitive advantage through constantly reconfiguring their resources. According to Teece et al. (1997), successful firms have been those in possession of dynamic capabilities.

Paying attention to the dynamic aspect of the environment, having only static, unique, and valuable resources as proposed by the resource-based view and the knowledge-based view is not enough since sustaining competitive advantage requires being able to adjust to the environment and thus having dynamic capabilities. Firms' output is indirectly affected by dynamic capabilities through the impact that these capabilities have on operational capabilities (Helfat and Peteraf, 2003). One of the most important factors affecting firms' success (or failure)

²² By combinative capability Kogut and Zander (1992) mean the intersection of the capability of the firm to exploit its knowledge and the unexplored potential of the technology. According to Kogut and Zander (1992), new learning, such as innovations, are products of a firm's combinative capabilities to generate new applications from existing knowledge.

²³ Teece et al. (1997) mention that, 'when firm-specific assets are assembled in integrated clusters spanning individuals and groups so that they enable distinctive activities to be performed, these activities constitute organizational routines and processes. Examples include quality, miniaturization, and systems integration. Such competences are typically viable across multiple product lines, and may extend outside the firm to embrace alliance partners.'

in dynamically-competitive environments, therefore, is creating and applying dynamic capabilities (Teece, 2007). One important type of dynamic capabilities which enhances firm's potential for growth is acquisition-based dynamic capabilities (Helfat et al., 2007). Acquisition-based dynamic capabilities is 'the capacity of the firm to purposefully create, extend, or modify the firm's augmented resource base, which includes the resources of partners' (Helfat et al., 2007). Acquisition-based dynamic capabilities consist of three main elements which are selection, identification, and reconfiguration (Helfat et al., 2007). This is quite in line with Laamanen and Keil (2008) who mention that acquisition capability which includes the ability to identify targets, negotiate deals, and manage the integration, is comprised by the knowledge, skills, systems, structures, and processes that an organization can use when doing acquisitions. According to Helfat et al. 2007, selection is the capacity to recognize when an acquisition would be the most suitable activity for gaining new resources. Identification is the capacity to find and negotiate with, the most suitable targets. Reconfiguration capability is 'the capacity to reshape resources within the target and acquiring firms'. This involves 'the capacity to combine resources from the target and the acquirer in order to create new resources, whether at the target or within the acquirer's original business unit or in some new organizational unit' (Helfat et al., 2007). Thus, in the context of knowledge acquisitions this acquisition-based dynamic reconfiguration capability is concerned with post-acquisition knowledge integration since it involves the capacity to be able to combine the resources of the firms involved.

In order to, eventually, create value through acquisitions firms should have the needed reconfiguration ability (Helfat et al., 2007). Possessing an strong post-acquisition capability might help enhancing the process of recombining resources (Helfat and Peteraf, 2003). The degree to which firms are able to integrate their knowledge-based resources within the post-acquisition phase mirrors their reconfiguration capability. If the creation of such acquisition-based dynamic reconfiguration capabilities, however, is dependent upon the degree to which knowledge integration can take place, than the firm's strategic flexibility is limited, on the one hand, by its repertoire of capabilities, since it is unlikely that these capabilities will extend far beyond those currently held. On the other hand, the time horizon and uncertainty associated with creating new capabilities (Grant, 1996). According to Grant (1996), having a flexible knowledge integration approach and network relationships (inter-firm collaboration through access to new knowledge) could help solve these problems. In the context of knowledge acquisitions, however, the latter solution is actually taken into account since knowledge acquisitions give access to the knowledge of the acquired firm and thus new knowledge. Nevertheless, even though, formally spoken, the acquiring company has access to the knowledge of the acquired company, still, knowledge integration is needed and thus the former solution proposed by Grant (1996) needs to be taken into account.

Knowledge integration is the source of micro-foundations of dynamic capabilities and an important aspect affecting business performance (Teece, 2007). In the context of knowledge acquisitions, transferring and integrating the acquired knowledge base into that of the acquiring company is one of the main objectives in order to enhance innovation (Cloudt, 2005). Transferring and integrating the acquired knowledge, however, is a complex process. Knowledge transfer and integration takes place through knowledge sharing among the employees of the firms involved. Knowledge sharing processes, therefore, could be seen as the micro-foundations of acquisition-based dynamic reconfiguration capabilities since these

processes enable the actual integration of knowledge. Knowledge sharing processes, however, differ from many other business processes since these processes have a number of salient features (Foss, 2007). An understanding of what these salient features are, however, is still missing in the literature (Foss, 2007).

The very fact that the knowledge to be acquired is tacit and socially complex might affect its survivor chance within the acquisition (Ranft and Lord, 2002). Another aspect affecting the knowledge acquisition process is the fact that the management has to deal with two (totally) different companies. These differences could be due to structural, social, cultural or differences in knowledge bases (e.g. Vermeulen and Barkema, 2001). For firms involved in knowledge acquisitions the sources of innovation are dispersed among two companies and embedded among their employees, therefore, creating dynamic capabilities becomes a great challenge. According to Jemison & Sitkin (1986) 'the acquisition process itself is a potentially important determinant of acquisition outcomes' (cited in Haspeslagh and Jemison, 1991). Therefore, in order to understand how successful firms direct their knowledge acquisition activities, a better understanding of the knowledge sharing processes is needed.

Understanding which mechanisms and practices successful firms apply for sharing knowledge in the post-acquisition phase in order to integrate different specialized knowledge, could help understand what the building blocks of the acquisition-based dynamic reconfiguration capabilities are. Identifying the micro-foundations of such dynamic capabilities, however, will be inherently incomplete or their implementation must be difficult. Otherwise firms' dynamic capabilities would not create the expected competitive advantage that they do (Teece, 2007). However, even though dynamic capabilities are idiosyncratic and path-dependent in emergence, they also have certain commonalities across firms, since there are more and less effective ways of dealing with certain organizational challenges (Eisenhardt and Martin, 2000). Stated in more popular parlance 'best-practice' regarding dynamic capabilities exists (Eisenhardt and Martin, 2000). Therefore, in order to create competitive advantage in dynamically-competitive environments, all knowledge regarding the creation of dynamic capabilities and thus such best-practices would be a good step forward. Before being able to detect such best-practices, however, a better understanding of organizational knowledge and its characteristics is needed in order to be able to understand the knowledge sharing processes. The next section focuses on these aspects.

ORGANIZATIONAL KNOWLEDGE

Sharing knowledge requires, in the first place, an understanding of the nature of knowledge. The degree to which knowledge can be shared is dependent upon its characteristics. A fundamental classification of organizational knowledge is made by Polanyi (1967), which is a distinction between tacit and explicit knowledge (Easterby-Smith and Prieto, 2008). According to Polanyi (Nonaka, 1994) 'explicit' knowledge can be codified and thus transmitted in formal and systematic language. Explicit knowledge is similar to 'knowledge about' (Spender, 1996). Tacit knowledge, however, is personally held, rooted in action, commitment and involvement in a certain context (Nonaka, 1994). Tacit knowledge is related with 'experience' (Spender, 1996). Articulating, capturing, and distributing explicit knowledge is easy, while tacit knowledge is more difficult to articulate and distribute (Easterby-Smith and Prieto, 2008). The latter may also

be because tacit knowledge is subconscious (Hislop, 2005). Tacit knowledge is subjective, bodily, of the here and now, and practice-based, while explicit knowledge is objective, of the mind, and the there and then, and concerned with theory (Gourlay, 2006). Tacit knowledge is shared through communication by creating mutual understanding, while explicit knowledge is captured in records of the past such as libraries, archives, and databases, which can be used if needed (Nonaka, 1994).

According to Polanyi (1966) the acquisition of knowledge from another, is 'both intellectual and practical'. Organizational knowledge is created through the interaction of tacit and explicit forms of knowledge (Easterby-Smith and Prieto, 2008). While Nonaka states that knowledge can only exist at the individual level, many other writers argue that knowledge can exist in social groups (Hislop, 2005). Based on this a different dichotomy of knowledge has occurred which is that of individual vs. group knowledge (Hislop, 2005, Hebert et al., 2005). Documented systems of rules, operating procedures, and formalized routines are examples of 'objectified knowledge' which can be seen as explicit group knowledge at the organizational level (Hislop, 2005). On the other hand, informal routines, narratives, and shared understanding are examples of 'collective knowledge' which is the tacit knowledge of the group that is not codified (Hislop, 2005). This classification, however, is also based on the distinction of tacit and explicit knowledge, while being socially embedded.

MANAGING ORGANIZATIONAL KNOWLEDGE

Dynamic capabilities are dependent of the knowledge evolution process which takes place through knowledge exploitation and exploration activities (Easterby-Smith and Prieto, 2008). On the one hand, knowledge exploration activities are focused on introducing the variations that generate new ideas, through e.g. alliances, organizational networking, and knowledge acquisitions (Easterby-Smith and Prieto, 2008) in order to increase innovation. On the other hand, knowledge exploitation activities are about replicating exiting methods into new contexts in order to increase efficiency (Easterby-Smith and Prieto, 2008). Both of these activities, however, can be the objectives of knowledge management (Swan et al., 1999).

Knowledge management, based on the tacit and explicit distinction of knowledge, has applied two different approaches in order to identify, develop, and leverage knowledge in organizations. The tacit and explicit distinction of knowledge has enabled scholars to consider various adaptation mechanisms with diverse characteristics for different types of knowledge (Spender, 1996). Knowledge management, comparable with organizational knowledge, is divided in two camps, those concerned with the technology of knowledge management and those who find human processes the primary task of knowledge management to pay attention to (Easterby-Smith and Prieto, 2008). The technology side is interested in managing knowledge and the mechanisms that help in doing so such as IT-infrastructures, data warehouses, and virtual centers of expertise (Easterby-Smith and Prieto, 2008). The human side focuses more on social relations, cultural factors and sense-making (Easterby-Smith and Prieto, 2008). Thus, the knowledge embedded in routines, practices and norms (Alvesson and Kärreman, 2001).

In a similar vein, Brown and Duguid (2000) make a distinction between process and practice. On the one hand, the process approach focuses on the way tasks are formally organized while being concerned with the structured coordination of people and explicit knowledge, which is

done in a top-down manner. On the other hand, the practice approach is concerned with the way tasks are actually performed. This approach emphasizes social interactions, especially informal, which occur in a bottom-up manner. According to Brown and Duguid (2000), tasks which seem highly independent according to formal processes, could be remarkably social in reality. For enhancing best practices, therefore, organizations should pay attention to the way such practices occur in reality in order to capture the tacit knowledge created through improvisation, narratives and communities that form such activities (Brown and Duguid, 2000). This does not mean that processes are not needed, but in order to be effective they must be based on practice.

The aforementioned two approaches are quite in line with the emergent and engineering approach mentioned by Van den Hooff and Huysman (2009). On the one hand, the emergent approach sees knowledge sharing as something not to be forced which should take place by the intrinsic motivation of the socially embedded employees in a bottom-up manner. On the other hand, the engineering approach assumes that managers can manage the process of knowledge sharing through stimulating and creating the needed environment, which is done in a top-down fashion through the use of organizational and technical infrastructures (Van den Hooff and Huysman, 2009). These contradictions in knowledge management suggest that technology is not the only aspect in order to facilitate knowledge sharing. Knowledge management is not seen only as a matter of building a large knowledge repository, 'but by connecting people so they can think together' (Alvesson and Kärreman, 2001). Process and practice, however, are not two competing views, but a reflection of the creative tension at the core of organizations involved in innovation (Brown and Duguid, 2000).

These two approaches of knowledge management are derived from two different epistemological perspectives of knowledge (Easterby-Smith and Prieto, 2008). These are the objectivist and the practice-based perspective (Hislop, 2005). The objectivist epistemology which is also referred to by Cook and Brown (1999) as 'epistemology of possession' views knowledge as an entity that people possess, but which can exist independently of people in a codifiable form (Hislop, 2005). Such knowledge can exist in a number of forms including documents, diagrams, computer systems, or be embedded in physical artefacts such as machinery or tools (Hislop, 2005). Thus, from this perspective knowledge is seen as being explicit. Even tacit knowledge can be converted, to a certain degree, into explicit knowledge according to this perspective. The root of the latter perspective is in the philosophy of positivism according to which the social world can be scientifically studied in order to quantify and measure social phenomena, leading to objective knowledge as an end result (Hislop, 2005). This perspective acknowledges the fact that much organizational knowledge is tacit while being optimistic about the ability of the organization to convert this knowledge into an explicit form (Hislop, 2005).

The practice-based perspective, on the other hand, emphasizes the fact that knowledge is embedded within practice and thus not codifiable (Hislop, 2005). Being referred to by Cook and Brown (1999) as the 'epistemology of practice', this perspective sees tacit and explicit knowledge as inseparable while being embodied in people and socially constructed (Hislop, 2005). Philosophy scholars of practice argue that practices underlie subjects and objects, emphasize non-propositional knowledge and explain the conditions underlying intelligibility (Schatzki et al., 2001). The way social practices are conducted cannot be made explicit, therefore, some tacit

component will remain unknown (Schatzki et al., 2001). Thus, we do not know how to set out tacit abilities into explicit forms (Schatzki et al., 2001). As Polanyi (1966) states 'explicit knowledge must rely on being tacitly understood' (Gourlay, 2006) which means that there is always some tacit aspect that remains unknown.

Many scholars argue that organizations evolve by the process of acclimating their members' knowledge, which is done mostly on a tacit level (Gourlay, 2006). The practice-based epistemology has its roots in a number of philosophical perspectives such as interpretive philosophy (Hislop, 2005) which emphasizes the role of individuals in articulating knowledge and shaping and interpreting the organizational context (Empson, 2001) and social constructionism (Easterby-Smith and Prieto, 2008) which views knowledge as being constructed from and through social relationships and interactions (Swan et al., 1999). In the context of knowledge acquisitions, this is an important aspect, since future innovation requires interaction and cooperation between the experts of the firms involved. This is quite in line with Eisenhardt and Schoonhoven (1996) stating that e.g. in product development alliances the employees of the firms involved must intensively interact in order to gain benefits. Thus, this view of knowledge as being socially constructed, through social interaction processes and embedded in communities of practice, emphasizes the importance of social coordination and (formal and informal) networking while trying to manage organizational knowledge (Swan et al., 1999).

UNDERLYING MECHANISMS AND PRACTICES OF DYNAMIC CAPABILITIES

Based on the literature of mergers and acquisitions, alliances, knowledge management, and human resources, various mechanisms and practices are discerned which could affect post-acquisition knowledge sharing and thus act as underlying mechanisms and practices of acquisitions-based dynamic reconfiguration capabilities. In the following sections these mechanisms and practices will be discussed and some propositions will be given.

The Importance of Practices

Mechanisms and practices of both types of knowledge management approaches have been mentioned by many scholars as being the building blocks of dynamic capabilities (Easterby-Smith and Prieto, 2008). Given that in case of knowledge acquisitions, the knowledge that is meant to be shared is usually of a highly ambiguous nature and thus tacit, personal interactions are extremely important in the post-acquisition phase (Ranft, 1997). According to Grant (1996), tacit knowledge can be integrated through the use of two types of mechanisms which are direction and routines. Direction involves converting tacit knowledge into explicit knowledge through the use of rules, directives, formulae and expert systems. However, this transformation of tacit knowledge into explicit means inherently a loss of knowledge since not all tacit knowledge can be converted. Organizational routines, the second type of mechanisms, solve this problem of the loss of tacit knowledge. By using routines there is no need to transform knowledge into an explicit form since knowledge integration through the use of routines takes place in coordinated work arrangements based on informal procedures and commonly understood roles and interactions among specialists. Dynamic capabilities of organizations are embedded in routines (Eisenhardt and Martin, 2000). Such routines are repetitive activities developed through the usage of firm's resources which enable knowledge transfer within the

firm (Heimeriks, 2008). 'Practice refers to the organization's routine use of knowledge and often has a tacit component, embedded partly in individual skills and partly in collaborative social arrangements' (Szulanski, 1996). 'In this sense, transfers of best practice could be conceived as replications of organizational routines' (Szulanski, 1996).

Lawson and Samson (2001) and Verona and Ravasi (2003) have mentioned physical, technical, structural, managerial systems, and cultural norms and values as important aspects for the development of dynamic capabilities (Easterby-Smith and Prieto, 2008). This, however, is quite a broad description. More specifically, skill development and mentoring have been mentioned as practices enabling the development of capabilities (Easterby-Smith and Prieto, 2008). Human resource scholars argue that commitment-based human resources practices such as e.g. job rotation and team-based work design aimed at creating mutual long-term exchange relations can enhance knowledge sharing through facilitating social climates of trust, cooperation, and shared codes and language (Collins and Smith, 2006). Thus, networking and socialization are important aspects which enhance knowledge sharing (Inkpen et al., 2000). Heimeriks (2008) mentions many authors who have come up with various intra-firm practices such as project teams, cross-functional committees, communities of practice which could affect knowledge sharing and enhance the organizational capability development process. Eisenhardt and Martin (2000) mention cross-functional teams, the creation of social bonds among business heads, experiential activities, routine use of brainstorming sessions and solving problems together, as being important for the development of certain dynamic capabilities. Thus, in dynamically-competitive markets dynamic capabilities are built through simple, experiential, unstable processes, which are based on fast-paced created knowledge in an iterative way (Eisenhardt and Martin, 2000). Hence, 'the basic path of capability development reflects a process of capability improvement, though perhaps somewhat fitful' (Helfat and Peteraf, 2003).

Somewhat in line with the importance of 'solving problem together' mentioned by Eisenhardt and Martin (2000), Zollo and Winter (2002, Zollo et al., 2002) explain that collective learning occurs when employees engage in constructive interactions in order to exchange their ideas. Collective discussions, debriefing sessions, workshops, seminars, performance evaluation processes could act as mechanisms which help articulate tacit knowledge in order to enhance organizational capability development process (Zollo and Winter, 2002). Another example is the creation of knowledge connections. By creating the opportunity for knowledge connections, social interactions between the acquired and acquiring company provide the foundation for evolving communities of practice (Von Krogh and Slocum, 1994). Knowledge connections are formed through formal and informal relationships between individuals and groups and are driven by the belief that sharing tacit knowledge is best achieved through 'mutual adaptation among members with common knowledge and shared implicit coding schemes accumulated through group interactions' (Lam, 1997). Examples of such knowledge connections are team buddy situations where a new employee is paired with the acquirer's personnel on a one to one basis.

Knowledge connections can also be created through site visit tours, and formal and informal meetings between parent and target organization. This is quite in line with Hislop (2005) who mentions that social interaction and face-to-face- communication is needed in order to share tacit knowledge. According to Hislop (2005) tacit knowledge can be shared through practices such as

the use of communities of practice, forums (electronic or face-to-face), implementation of a formalized mentoring system to pair experience and inexperienced workers, or by developing trust in projects through extensive face-to-face interactions. In the context of alliances Parise and Casher (2003) mention that communities of practice, formal and informal communication among alliance managers, trainings and workshops can act as practices enhancing the alliance capability development process (Heimeriks, 2008). Of course, in alliances the firms involved remain separate, however, regardless of the fact that in acquisitions the firms are eventually transformed into one entity, practice shows that the creation of this single entity is quite difficult since the management keeps dealing with two (totally) different companies. This is probably why successful knowledge integration remains difficult. Thus, from the point of view that the management has to deal with two different companies, acquisitions could be compared with alliances. Hence, all knowledge regarding the alliance capability development process, therefore, could also be helpful in the context of acquisitions.

In alliances, as Heimeriks (2008) mentions, the use of best practices, training courses, cultural trainings, workshops, and exchange of experiences can be seen as practices through which knowledge can be shared in order to build dynamic capabilities. These practices not only help to share knowledge within the organization, but also institutionalize knowledge through the creation of routines (Heimeriks, 2008). Thus, as Helfat et al. (2007) mention, inter-firm knowledge sharing processes should be created and institutionalized in order to enhance knowledge transfer. Taking this into account, the core of organization's capability development process then becomes 'remember by doing' (Heimeriks, 2008).

Since individual knowledge and perspectives remain personal unless they are amplified and articulated through social interaction (Nonaka, 1994) organizations should stimulate the occurrence and need for such interactions. The above mentioned arguments have already put forward that social interactions are fundamental for knowledge acquisitions in order to share tacit knowledge. This is in line with Prieto and Easterby-Smith (2006) who state that generating dynamic capabilities requires knowledge management to focus on people and social processes, consequently, compared to technological aspects social aspects are probably more important (Easterby-Smith and Prieto, 2008). Therefore, for firms involved in a knowledge acquisition, practice-based approaches such as site visit tours, job rotation, sharing of best practices, mentoring, project teams, trainings, workshops, and cross-functional committees will probably lead sharing more relevant (tacit) knowledge than IT-based approaches. In line with Brown and Duguid (2000) and Van den Hooff and Huysman (2009) the assumption is that this effect would probably be stronger if such practices are emergent in nature, occurring in a bottom-up manner (e.g. through suggestions and initiatives of core knowledge workers) and thus based on the way tasks are actually performed. As Easterby-Smith and Prieto (2008) mention, knowledge management and dynamic capabilities enhance performance when they are focused on the operational functioning of the organization. These arguments lead to the following proposition:

Proposition 1: Especially emergent practices which are based on relatively more frequent interaction among the employees of the acquiring and the acquired firm, have a greater effect on sharing relevant tacit knowledge in the post-acquisition phase than other mechanisms and practices.

Firm's Acquisition Experience and the Creation of Mechanisms

Regardless of the importance of the practice-based approaches for sharing tacit knowledge, there is some evidence that having knowledge which is codified by the acquirer enhances acquisition performance (e.g. Helfat et al. 2007). In the context of knowledge acquisitions, acquisition performance can be improved through enhancing knowledge sharing. For improving acquisitions' performance firms must develop an organizational capability which helps implementing acquisitions (Zollo and Singh, 2004). Thus, in order to enhance knowledge sharing so that acquisitions' performance is improved an organizational implementation capability is needed. In the context of knowledge acquisitions, given that the environment is dynamically-competitive, an acquisition-based dynamic reconfiguration capability is needed which deals with the acquisition implementation phase. Such organization capability can be built through codification of past experience and creation of mechanisms and procedures to share explicit knowledge. Hence, organizations can learn from their past acquisition experiences through articulation and codification of their lessons learned (Zollo and Winter, 2002) and the use of this knowledge in subsequent acquisitions. This is quite in line with Laamanen and Keil (2008) stating that serial acquirers accumulate their experience through the development of acquisitions program which enhance their subsequent acquisition performance. This for example, can be achieved through the creation of standard mechanisms and procedures, which will enhance post-acquisition knowledge sharing. Thus, codifying experience into technology and creating formal procedures enable the application of experience and enhance the creation of routines which help develop dynamic capabilities (Eisenhardt and Martin, 2000, Laamanen and Keil, 2008).

In their research Laamanen and Keil (2008) found that serial acquirers through accumulating their experiences and developing acquisitions programs tend to outperform other acquirers. In doing this, the frequency pattern with which the acquisitions are carried out matters since a stable frequency pattern ensures the accumulation of experience. The findings of Laamanen and Keil (2008), however, are quite contrary to that of Zollo and Singh (2004) who found that experience accumulation was non-significant while the degree of codification had a strong impact on acquisition performance. On the one hand, the non-significant effect of experience accumulation could be due to firms' heterogeneity and the occurrence of negative transfer. Inexperienced managers might rely on firm's acquisition experience which could lead to negative transfer (Helfat et al., 2007). Negative transfer occurs 'when one's search for an analogous condition from the past leads to a reliance on a situation that is superficially but not structurally similar to the current situation' (Helfat et al., 2007). It is especially difficult for less experienced acquirers to judge the similarity of the target firm with previous ones (Helfat et al., 2007) and thus to make sure that no negative transfer occurs. On the other hand, the positive effect of the degree of codification and articulation of acquisition experience mentioned by Zollo & Singh (2004) and thus the use of IT-based mechanisms and procedures in order to share knowledge in the post-acquisition phase, could be due to the existence of acquisition implementation knowledge within the firm.

In the context of alliances Helfat et al. (2007) mention that knowledge management's function is partly about codification of explicit knowledge regarding the different stages of alliances. Thus, one of the tasks of knowledge management is the creation of mechanisms and procedures

regarding the alliance process in order to enhance knowledge sharing. Some examples of such mechanisms which can be used for codifying explicit knowledge are intranets, groupware technology (e.g. Lotus Notes), decisions support systems, repository and retrieval systems, and searchable electronic database (directories of experts) (Hislop, 2005). Zollo and Winter (2002) mention also manuals, blueprints, spreadsheets, decision support systems, project management software, performance appraisals, and postmortem audits, as being important mechanisms for knowledge sharing and thus the development of dynamic capabilities. As Heimeriks (2008) in the context of alliances, mentions, alliance repositories and supporting management systems (e.g. performance metrics and global network infrastructure) could be critical aspects for the management of alliances. Zollo and Singh (2004) state that the acquirer can learn to manage post-acquisition integration through experience accumulation and codification of explicit knowledge in manuals, systems, and other tools. Thus, the importance of such mechanisms can also be expected in the context of knowledge acquisitions.

According to Zollo and Winter (2002), activities aimed at knowledge codification and articulation may become superior mechanisms in order to accumulate expertise when tasks' frequency and homogeneity are reduced. Thus, acquiring a firm may not be a daily task of the organization, but this does not necessarily mean that no learning benefits will occur in the codification process. Since such codification efforts force the employees to draw explicit conclusions regarding their experience (Zollo and Winter, 2002). Such learning mechanisms for knowledge articulation and codification are catalyzed by knowledge management and could enable the creation of dynamic capabilities (Easterby-Smith and Prieto, 2008). Through codifying past experience and creating certain IT-based mechanisms and procedures to share codified knowledge, the acquirer might be able to enhance knowledge sharing and thus improve the acquisition performance. By reflecting on past acquisition performances organizations can adjust the use of such mechanisms and if needed create new ones, this reflection and adjustment which results in reconfiguration of the way knowledge-based resources are used will lead to the dynamic aspect of acquisition-based dynamic reconfiguration capabilities. Of course, acquisition experience could also lead to the adjustment of practices that are used to share knowledge, but the assumption is that the more acquisition experience the firm has the greater the effect of IT-based mechanisms and procedures will be since firms will try to create standard procedures and tools to perform tasks as efficient as possible. These arguments lead to the following proposition:

Proposition 2: IT-based mechanisms and procedures, based on relatively more acquisition experience, which are aimed at sharing explicit knowledge will have a greater positive effect on post-acquisition knowledge sharing, than IT-based mechanisms and procedures which are based on less (or no) acquisition experience.

Only a few studies have focused on the effect of acquisition experience of serial acquirers on their performance (Laamanen and Keil, 2008). On the one hand, it is questionable whether acquisition experience would enhance performance since acquisitions are heterogeneous, irregular, and vary in their outcomes (Hayward, 2002). Vermeulen and Barkema (2001), mention that firms might learn from their acquisitions if such acquisitions are related to their business. According to Hayward (2002), acquisition experience alone is not sufficient to have superior performance, better performing firms are those that acquire companies with similar businesses to that of the firms of their prior acquisitions. In the same vein, Halebian and Finkelstein (1999)

mention that acquisition experience has an inverted U-shaped effect on acquisition performance, which is positive when firms acquire organizations that are similar to their prior acquisitions. Meschi and Metais (2006) mention that acquisition experience does affect acquisition performance. This effect, however, has a curvilinear distribution around the acquisition's announcement date. Hence, on the other hand, it could be that firms with more acquisition experience differ substantially from other firms in their acquisitions' performance and thus perform better (e.g. Laamanen and Keil, 2008). Hence, having acquisition experience could be seen as a principal mechanism to have the skills needed to manage acquisitions in the right way (Hayward, 2002). The literature, however, is quite contradictory regarding this. One thing that is clear is that, to the best of our knowledge, up until now, no attention has been paid to the effect of acquisition experience on post-acquisition knowledge sharing.

Zollo and Singh's (2004) research has focused on the U.S. banking industry while measuring performance by looking at return on assets (ROA). The research of Laamanen and Keil (2008) has focused on serial acquirers in seven industries (e.g. pharmaceuticals and biotechnology) and their acquisition performance which was measured by market returns to acquirer shareholders. Haleblian and Finkelstein (1999) look at the effect of acquisition experience on acquisition performance while measuring performance through abnormal returns. The research of Hayward has focused on the effect of acquisition experience on acquisition performance while measuring performance by looking at the created shareholder value. Meschi and Metais's (2006) research considers acquisition experience as experience in acquisition transactions which does not include post-acquisition knowledge integration. Again the measurement used for performance is abnormal returns. Focusing on post-acquisition knowledge sharing within knowledge acquisitions, therefore, could reveal some other interesting findings regarding the effect of acquisition experience. This leads to the following proposition:

Proposition 3: Firms with relatively more acquisition experience share more knowledge in the post-acquisition phase, than firms with less (or no) acquisition experience.

Acquisition-specific Functions

One important aspect distinguishing firms that have improved their alliance performance from those that have not, is the existence of an internal infrastructure which consists of management processes regarding alliances (Heimeriks, 2008). These management processes are created by specific functions which are formed to focus on the management of alliances. As Helfat et al. (2007) mention, organizations with higher alliance performance had better developed knowledge management functions regarding their alliances. 'Such firms have a better developed alliance manager function, which is responsible for developing both the tacit and codified knowledge associated with managing different stages of alliances' (Helfat et al., 2007). Thus, experiences will remain on a local level unless they are organized by explicit learning mechanisms. The existence of alliance managers, alliance specialist, and alliance departments could be vital aspects for the alliance management process (Heimeriks, 2008). Hence, an acquisition-management function, such as for example a M&A team (Zollo and Winter, 2002), analogous to the alliance function could also have a positive effect on firms' acquisition performance (Helfat et al., 2007). This effect, however, is probably through intervention in the

post-acquisition knowledge sharing process since such functions can give directions and decide which mechanisms and practices to use in order to enhance post-acquisition knowledge sharing.

Besides giving directions and deciding which mechanisms and practices to use, such acquisition-specific functions can also enhance knowledge sharing through the use of certain HR-incentives such as rewards, bonuses, and the use of retention strategies. Taking into account that personnel stability acts as a determinant for the sustainability of the organizational memory, an absence of such stability can create a disruption of the organizational knowledge development process (Heimeriks, 2008). Therefore, promotion policies and reward systems which are aimed to ensure the retention of core knowledge employees are important aspects (e.g. Inkpen et al., 2000). Eisenhardt and Martin (2000), however, have also mentioned routines regarding rewarding business heads for their individual success as being an important aspect of post-acquisition dynamic capabilities. Thus, skill reward systems are practices which could enable the development of capabilities (Easterby-Smith and Prieto, 2008).

Another important aspect to pay attention to is 'turnover'. Given that people and especially teams are the carriers of the knowledge that is meant to be shared, it is taken for granted that organizations should prevent the inevitable turnover of people that occurs after a deal is closed. Thus, the effectiveness of such functions requires personnel's stability (Zollo and Winter, 2002). Although most empirical data on the relation between turnover and performance show a negative correlation, the results are still mixed. Chakrabarti (1990) found a negative relation between turnover of senior technical employees and performance. Based on extensive quantitative research Ranft & Lord (2002) found, however, that the turnover of top management has a less negative impact on performance than the turnover of middle management and R&D employees. Retention strategies are thus needed as mechanisms to cope with this problem.

By making decisions and giving directions, managers judging what to do and not to do are crucial to organization's action (Helfat et al., 2007). Thus, managerial decision making is one of the important aspects regarding the internal selection environment of the firm (Helfat and Peteraf, 2003). Therefore, acquisition-specific functions through their capability of making decisions and giving directions in order enhance knowledge sharing affect the post-acquisition knowledge sharing process. 'strategic decision making is a dynamic capability in which managers pool their various business, functional, and personal expertise to make the choices that shape the major strategic moves of the firm' (Eisenhardt and Martin, 2000). Hence, dynamic capabilities are enabled through the decisions managers make (Helfat et al., 2007). Thus, dynamic capabilities are often combinations of simpler capabilities and routines (Eisenhardt and Martin, 2000). Perhaps the importance of managerial decision making is related to what Tsoukas (1996) refers to as the 'indeterminacy of practice' which is the fact that the 'distinctiveness of all situations that people act in requires them to continually make personal judgments' regardless of well defined rules as guidance for their actions (Hislop, 2005). Therefore, a theory of acquisition-based dynamic capabilities should take into account this 'soft side' of strategy (Helfat et al., 2007) and thus the importance of acquisition-specific functions. These arguments lead to the following proposition:

Proposition 4: The existence of acquisition-specific functions, particularly those that pay special attention to HR-incentives, has a positive effect on post-acquisition knowledge sharing.

Research Model

Taken together, the above mentioned propositions result in the following research model which is depicted below:

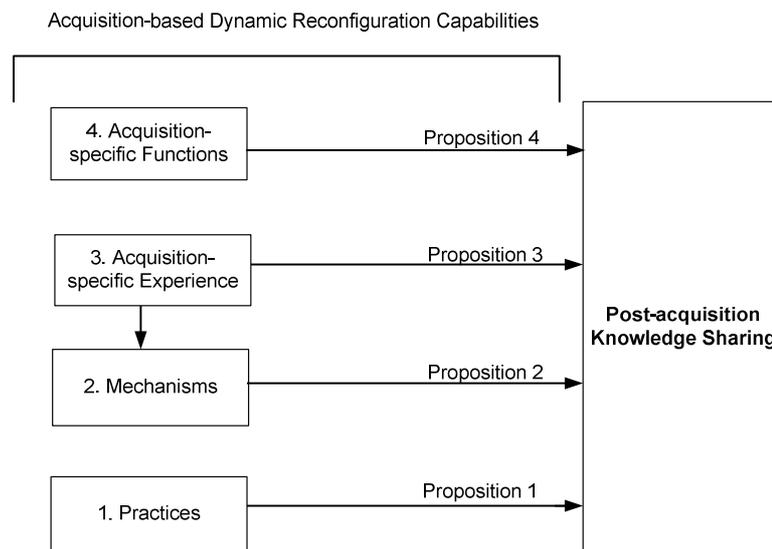


Figure.1 Research Model

The above depicted model primarily illustrates how the four main independent variables (i.e. practices, mechanisms, acquisition-specific experience, and acquisition-specific functions) affect the dependent variable post-acquisition knowledge sharing. The model also recognizes that acquisition experience through enhancing the mechanisms that are used to share explicit knowledge indirectly affects post-acquisition knowledge sharing and thus reinforces the effect of mechanisms on post-acquisition knowledge sharing.

The central reasoning is that, first, practices such as mentoring, enable the sharing of tacit knowledge. Second, mechanisms such as repository and retrieval systems, enable the sharing of explicit knowledge and their effect is even more when acquisition-specific experience improves them. Third, acquisition-specific experience enhances post-acquisition tacit and/or explicit knowledge sharing. Finally, acquisition-specific functions such as M&A department, affect tacit and/or explicit post-acquisition knowledge sharing through the decisions that they make. The relationships proposed in this model, however, should be tested empirically.

CONCLUDING REMARKS

The most important aspect affecting the success of knowledge acquisitions is being able to share relevant knowledge in order to innovate. Regardless of the increasing number of knowledge acquisitions, however, an understanding of how successful firms direct their knowledge sharing activities remains absent. Clearly, there is a need for systematic research on knowledge sharing through knowledge acquisition. This paper argues that acquisition-based dynamic reconfiguration capabilities can be seen as a distinctive knowledge integration ability

of successful firms. Trying to understand which underlying mechanisms and practices are the forces behind the creation of such capabilities would be a good step forward in order to understand how to manage more successful knowledge acquisitions. Although this present paper has not satisfied this need, it has set a foundation for the empirical research that will be conducted in the near future.

Supporting knowledge sharing depends to a large extent on the uniqueness of the particular situation. What works well in one organization will not necessarily work in another organization. This has implications for the way organizations can intervene in the process of knowledge sharing. Specifically, it is proposed that the more frequent interaction the practices used entail the more tacit knowledge will be shared, the more acquisition-specific experience the firm has the more positive the effect of using IT-based mechanisms and procedures for sharing explicit knowledge will be, the more acquisition-specific experience firms have the more post-acquisition knowledge will be shared, and that having acquisition-specific functions, especially with a focus on HR-incentives, will affect post-acquisition knowledge sharing in a positive way.

Since merely using mechanisms and practices is not enough, the suggestion is that organizations should use the lessons learned from their past experience in order to enhance knowledge sharing. Thus, mechanisms and practices along with the firm's acquisition experience lead to the creation of acquisition-based dynamic reconfiguration capabilities. Clearly, the value of the model introduced in this paper needs to be validated by empirical research. This, however, is an interesting research topic since, to the best of our knowledge, up until now, no research has been conducted regarding the micro-foundations of such capabilities within the context of knowledge acquisitions. This research, therefore, could make a significant contribution to the literature of the strategic management field and more specifically to the literature of the knowledge-based view of the firm.

It maybe, however, that knowledge acquisitions, are inherently too situation-specific as to provide a general causal explanation. Future research, therefore, will be probably conducted in an area that should be treated carefully with respect for organizational idiosyncrasies. Understanding the nature of knowledge sharing processes only by conducting quantitative research is not enough since it is important to understand the micro-processes of knowledge sharing that are embedded in this process. Therefore, our intention is to, first, set out a survey among practitioners (R&D experts and M&A managers) within one specific industry (i.e. Bio-industry) and then conduct a case-study within an organization that operates in the same industry in order to gather data which unravels the practice-side of the story while giving richer information regarding the mirco-processes of knowledge sharing and thus reinforcing our survey findings. Hence, to our knowledge, combining quantitative research and qualitative ethnographic research seems to be a good step forward, in order understand the process of knowledge sharing within knowledge acquisitions and thus the micro-foundations of acquisition-based dynamic reconfiguration capabilities.

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VOLUNTARY DISCLOSURE AND FINANCIAL REPORTING IN ITALIAN SME. A STRATEGIC PERSPECTIVE

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In most studies, the relationships between voluntary disclosure in financial reporting and two main characteristics of the firms are examined. One characteristic is the size of the company, and the other is the company's listing status. Thus, large and listed firms are extensively investigated also in Italian literature. Less attention is paid to small and medium firms which are about 98% of the total in Italy.

Purpose of the paper – The paper aims to analyze main factors, both country-specific and not, influencing financial reporting quality and voluntary disclosure in Italian small and medium firms.

Design/methodology/approach – The paper offer a strategic point of view on the variables influencing voluntary disclosure and financial reporting quality in Italian context. Such variables and the set of cause-effect relationships connecting them are examined on the basis of mainstream Italian economia aziendale literature approaches referring to corporate governance, information systems, internal auditing, accounting regulation, earnings management, and stakeholder theory, by reviewing empirical and theoretical literature.

Findings. The paper shows Italian mainstream literature focussed on the variables influencing corporate disclosure and financial reporting. A systematic model is proposed.

Research limitations/implications – The study is based on a theoretical basis. Future research aimed at examining, by surveys and case studies, relationships between the variables of the model needs, in order to explain and predict corporate financial disclosures in Italian small and medium firms, are planned.

Practical implications – The comprehensive framework developed in this study for organizing and evaluating voluntary disclosures and financial reporting quality is an initial step in the direction of examining both phenomena from a strategic perspective.

Originality/Value - The paper proposes a model of analysis whose systematic structure is not yet developed in the literature

Keywords: Corporate governance. Voluntary disclosure. Italian literature

Paper type: Framework

INTRODUCTION

The paper shows Italian mainstream literature focussed on the variables influencing corporate disclosure and financial reporting. A systematic model composed of ten relations is proposed.

In most studies, the relationships between voluntary disclosure in financial reporting and two main characteristics of the firms are examined. One characteristic is the size of the company, and the other is the company's listing status. Thus, large and listed firms are extensively investigated also in Italian literature. Less attention is paid to small and medium firms:

- a) which prevail in Italian capitalism, and represent over 99% of total companies, and 93% of the workforce is employed in them, according to the Italian Institute of Statistics (ISTAT, 2008) (Table 1);

	1-9 employees	10-49 employees	50-249 employees	250 employees and more	Total
Primary industry	0,11	0,03	0,01	0	0,15
Traditional manufacturing	5,21	0,74	0,08	0,01	6,04
Specialized supply	1,09	0,29	0,05	0,01	1,44
R&S	0,61	0,06	0,01	0	0,68
Economies of scale	2,54	0,63	0,08	0,01	3,26
Housing	13,02	0,72	0,03	0	13,77
Commerce	26,94	0,8	0,06	0,01	27,81
Hotels and restaurants	5,74	0,36	0,02	0	6,12
Transports and communications	3,13	0,25	0,04	0,01	3,43
Firms services	25,63	0,48	0,07	0,01	26,2
Family services	10,79	0,25	0,05	0,01	11,1
Total	94,81	4,61	0,5	0,08	100

Table 1 – Small and medium firms in Italy Source: Istat (Italian Institute of Statistics), *Rapporto annuale (Annual Report)*, 2008, p. 70.

- b) where individual proprietorships and partnerships prevail (Table 2);

	Joint-stock company					Individual proprietorship and partnerships				
	1-9 employees	10-49 employees	50-249 employees	250 add. e oltre	Totale	1-3 employees	4-9 employees	10-19 employees	20 employees	Total
Primary industry	0,04	0,12	0,12	0,51	0,79	0	0,02	0,01	0	0,03
Traditional manufacturing	0,56	2,2	1,79	1,33	5,88	0,85	1,76	0,79	0,29	3,69
Specialized supply	0,28	1,16	1,27	1,03	3,74	0,16	0,29	0,18	0,06	0,69
R&S	0,08	0,25	0,35	0,87	1,55	0,13	0,11	0,03	0,01	0,28
Economies of scale	0,55	2,18	1,85	2,27	6,85	0,35	0,89	0,52	0,17	1,93
Housing	1,25	1,91	0,66	0,3	4,12	2,37	2,68	0,7	0,17	5,92
Commerce	2,08	2,51	1,32	2,11	8,02	5,76	3,81	0,59	0,12	10,28
Hotels and restaurants	0,48	0,8	0,35	0,67	2,3	0,95	2,28	0,56	0,18	3,97
Transports and communications	0,35	0,84	0,89	3,23	5,31	0,58	0,47	0,16	0,07	1,28
Firms services	1,73	1,55	1,47	3,4	8,15	1,64	1,12	0,18	0,12	3,06
Family services	0,45	0,92	1,14	1,16	3,67	0,99	0,8	0,1	0,03	1,92
Total	7,85	14,44	11,21	16,88	50,38	13,78	14,23	3,82	1,22	33,05

Table 2 – Type of companies in Italian firms Source: Istat (National Institute of Statistics), *Rapporto annuale (Annual Report)*, 2008, p. 73.

- c) are not IAS adopters. As a matter of fact, on 25 February 2005, the Italian Council of Ministers approved a Legislative Decree regarding the options provided by Article 5 of Regulation 1606/2002 of the European Parliament (the EU Accounting Regulation) to permit or require the adoption of the

International Financial Reporting Standards (which includes IASs and Interpretations) in respect of annual accounts and of non-publicly-traded companies (Table 3).

<p><i>Listed companies, issuers of financial instruments widely distributed among the public, banks, stock broking companies, fund management companies, regulated financial institutions</i></p> <ul style="list-style-type: none"> • Consolidated financial statements: IFRSs compulsory from 2005 • Separate financial statements: IFRSs optional from 2005. IFRSs compulsory from 2006. <p><i>Insurance companies</i></p> <ul style="list-style-type: none"> • Consolidated financial statements: IFRSs compulsory from 2005 • Separate financial statements: IFRSs not permitted in 2005. IFRSs compulsory from 2006 only for listed companies that do not prepare consolidated financial statements <p><i>Subsidiary and associated companies of the above companies, and other companies that prepare consolidated financial statements</i></p> <ul style="list-style-type: none"> • Consolidated financial statements: IFRSs optional from 2005 • Separate financial statements: IFRSs optional from 2005 <p><i>Companies other than the above</i></p> <ul style="list-style-type: none"> • Individual financial statements: IFRSs optional from a year to be determined by the Ministry for the Economy and Justice <p><i>Small Companies preparing financial statements in abbreviated form</i></p> <p><i>Individual financial statements: IFRSs not permitted</i></p>

Table 3 – Ias adopters in Italy

The paper is structured as follows: Section 2 provides a brief overview of mainstream studies on financial reporting quality and voluntary disclosure. Section 3 focuses on the main characteristics. Section 4 proposes a model for analyzing financial reporting and voluntary disclosure in a strategic perspective. Section 5 summarises the results of the analysis; and, Section 6 discusses the limitations of the paper and the directions of future research.

THEORETICAL FRAMEWORK FOR THE STUDY: CORPORATE GOVERNANCE, FINANCIAL REPORTING AND VOLUNTARY DISCLOSURE LITERATURE

The incentive of firms to voluntarily disclose information has been of interest to both analytical and empirical researchers in accounting. Analytical research has examined issues such as how competition affects disclosure (Verrecchia, 1983; Darrough and Stoughton, 1990), and the use of disclosure as a signal of firm value (e.g., Hughes, 1986). Empirical research on voluntary disclosure has a much longer history, with a stream of studies documenting the impact of firm characteristics such as size, listing, leverage and managerial ownership on disclosure. Skinner (1994) finds that large negative earnings surprises are more often preempted by voluntary corporate disclosures. More recent research suggests that disclosure affects the cost of equity capital (Botosan, 1997) and cost of debt capital (Sengupta, 1998) (Eng and Mak, 2003: 326).

The quality of financial reporting and other financial outcomes previously described are affected by characteristics of corporate governance and auditors. Researchers have attempted to understand their relationship using various perspectives. In the accounting and finance academic literature, particularly in the USA, an agency theory perspective is commonly used to

explain the concept of corporate governance. Control of ownership and various attributes of boards of directors and board committees are thought to be important factors in aligning management's objectives with those of the owners. The role of independent (outside) directors has been increasingly emphasized for proper corporate monitoring. This has been particularly true for audit committees, and more recently for compensation and nomination committees. Completely independent audit committees are now required for most publicly held companies. Independent auditors are also part of the monitoring process for financial reports. Various measures of auditor independence, including non-audit fees and auditor quality (usually size) have been employed to understand the corporate governance and monitoring environment (Kalbers, 2009: 193)

Full voluntary disclosure, however, rarely seems to occur in reality, and firms typically do not disclose more than regulation requires. One possible reason for the lack of full disclosure is that disclosure is costly to firms. First, there may be a direct cost associated with producing and disseminating information. In particular, information may need to be disclosed or certified by third parties such as accounting firms. Second, since disclosure reveals information to competitors or others who interact strategically with the firm, it may cause the firm to lose competitive advantage or bargaining power in various contexts. However, as pointed out in Fishman and Hagerty (1998), even if disclosure is costly, it does not imply that disclosure regulation is desirable. It is quite possible that firms' disclosure policies are socially optimal given the cost of disclosure. (Admati and Pfleiderer, 2000: 480).

Prior work suggests that voluntary disclosure is greater when the quality of information held by managers is relatively high and/or when information asymmetry is relatively great. Verrecchia (1990, 376) examines managers' decisions to voluntarily disclose proprietary information and concludes "the intuition that higher-quality information is accompanied by more disclosure appears to be a robust economic notion (at least a first-order effect), and thus might be useful in assisting future empirical investigations." Jung and Kwon (1988) show that the disclosure region (the set of signals which are voluntarily disclosed) increases as outsiders' beliefs become relatively more diffuse, suggesting that increases in informational asymmetry are accompanied by greater voluntary disclosure.

A commitment to increased levels of disclosure reduces the possibility of information asymmetries arising either between the firm and its shareholders or among potential buyers and sellers of firm shares. This, in turn, should reduce the discount at which firm shares are sold, and hence lower the costs of issuing capital (Leuz and Verrecchia, 2000: 92).

Owing to limits to investor attention, information that is presented in salient, easily processed form is assumed to be absorbed more easily than information that is less salient, or that is only implicit in the public information set (Hirshleifer and Tzoh, 2003: 339).

Regulated financial information provides valuable information to investors. However, because this research does not compare the relative informativeness of regulated and unregulated financial information, it does not necessarily imply that regulation is superior to a free market approach to disclosure. The finding that the value of regulated accounting data varies systematically based on firm characteristics, time dependent variables, and country-specific institutions is also subject to alternative interpretations. Do the differences reflect the

influence of systematic economic factors that make regulation more or less effective? Or, is the variation driven by correlated omitted variables such as firm and country growth, or risk? Another branch of accounting research examines the value relevance of information presented under proposed new financial reporting standards. This research uses the association between earnings and stock prices or returns as a measure of value relevance (Healy and Palepu, 2001: 413).

Shareholders and other stakeholders require companies to disclose information concerning their prospects for future performance and the sustainability of current value-creation drivers. This requires effective communication about the risks affecting a firm's strategies and the actions planned to take to capitalize on emerging opportunities as well as to minimize the risk of failures (Beretta and Bozzolan, 2004: 265; 267).

Scholars expect greater disclosure-related benefits will accrue to family firms. However, if earnings quality is better for non-family firms and non-family firms are more likely to make management forecasts of bad news, we expect greater disclosure-related benefits will accrue to non-family firms. Finally, family firms with founder CEO, rather than family firms with descendent CEO, are primarily responsible for family firms exhibiting better disclosure practices and disclosure-related consequences as compared to non-family firms (Ali *et al.*, 2000)

Other studies have examined the relationship between ownership structure and disclosure or management forecasts of earnings. Ruland *et al.* (1990) hypothesize that firms that release earnings forecasts have a higher proportion of outside ownership than other firms. Their hypothesis arises from Jensen and Meckling's (1976) theory that as the manager's share ownership falls, outside shareholders will increase monitoring of manager's behavior. As the manager's share ownership falls, the manager will have increased incentives to consume perks and reduced incentives to maximize job performance. To reduce monitoring costs by outside shareholders, the manager will provide voluntary disclosure. Eng and Mak, 2003: 329).

THE MAIN FACTORS INFLUENCING FINANCIAL REPORTING AND VOLUNTARY DISCLOSURE IN ITALY

Corporate governance

Italy is usually described in the literature as a country that features weak legal protection of minority investors, inefficient law enforcement, high ownership concentration, and an abundance of pyramidal groups and nonvoting shares (Di Pietra *et al.*, 2008: 77-78).

Main characteristics of corporate governance in Italy are:

- 1) the type of company and the related corporate governance mechanisms;
- 2) the famil firm model.

Type of company and corporate governance mechanisms. Under Italian Law two main types of company may be incorporated: S.p.A. (Società per Azioni) and S.r.l. (Società a responsabilità limitata).

Società per azioni is the normal form for larger companies (joint stock companies). An S.p.A. may be listed on the Stock Exchange although the absolute majority are not. It is however necessary for a company to be an S.p.A. in order to be listed thereon.

Società a responsabilità limitata corresponds to a closely held limited company. It is the kind of structure which is more suited to small-to-medium sized enterprises where limited liability is required. This is by far the most common type of company used by Italian entrepreneurs and that most frequently chosen by foreign parent companies when setting up their subsidiaries in Italy.

In 2003, a great reform of the Italian Civil Code was applied in order to change the corporate governance systems of Italian firms, with particular reference to auditing mechanisms. Besides, in Italian legislation three different governance models are allowed, i.e. the so called traditional model, the dualistic model and the monistic model (Table 4).

<i>Corporation</i>		%
<i>Traditional model</i>	24.399	98,12%
<i>Monistic model</i>	324	1,30%
<i>Dualistic model</i>	143	0,58%
<i>Total</i>	24.866	100,00%
<i>Limited liability company</i>		%
<i>Sole director</i>	266.902	71,00%
<i>Board of directors</i>	109.000	29,00%
<i>Total</i>	375.902	100,00%

Table 4 – Main types of company in Italy Source: *Il sole 24 ore (Main Italian economic newspaper), 2008*

Most of the small and medium firms did not modify their governance system, so they maintain the “traditional model”, even if it was emended by the above mentioned reform which assigned to an External Auditor or to an Auditing Company all the Financial Reporting auditing activities. In the companies which do not issue shares in the capital market and are not obliged to prepare a consolidated financial statement, all Financial Reporting Auditing activities are delegated to the Statutory Committee (Cortesi *et al.*, 2009: 78).

In the prevailing model (the “traditional” one), the governance structure of corporations is two-tiered: the managing board (*consiglio di amministrazione*) has the function of ratifying decisions that have been previously taken by the controlling group, and is supplemented by a board of auditors (*collegio sindacale*) who are responsible for internal monitoring.

Statutory auditors and audit firms should be independent when carrying out statutory audits. They may inform the audited entity of matters arising from the audit, but should abstain from the internal decision processes of the audited entity. If they find themselves in a situation where the significance of the threats to their independence, even after application of safeguards to mitigate those threats, is too high, they should resign or abstain from the audit engagement. The conclusion that there is a relationship which compromises the auditor's independence may be

different as regards the relationship between the auditor and the audited entity from that in respect of the relationship between the network and the audited entity.

Family firms model. Family firms are companies in which one or more families linked by kinship, close affinity, or solid alliances hold a sufficiently large share of risk capital to enable them to make decisions regarding strategic management (Corbetta, 1995). Owners/founders perceive their firm as a “value” which must be transmitted to their heirs. From their perspective, appointing professional managers to run the firm implies the substantial failure of an entrepreneurial system based on the strength of family ties. Firms controlled by the entrepreneurs who started them often close down - rather than becoming corporations - when their founders are about to retire and no viable conditions exist for the persistence of family control after their retirement. In other words, when their heirs are unable to continue the family business, or when there are no heirs, they prefer to close the firm down rather than hand over control to outsiders (Santarelli and Lotti, 2005: 184; 190).

Proponents argue that outside board members bring fresh perspectives and new directions (Jain, 1980); monitor the progress of the family business and act as arbitrators; help in the succession process by providing support for the newly elected leader; analyse perceived strengths and weaknesses more objectively; help reduce the loneliness of the owner-manager; and act as catalysts for change, sounding boards for the owner-manager, and low-cost consultants (Mueller, 1988; Heidrich, 1988).

Unlike managerial companies, the success of family firms depends on the ability to manage three networks: the familial network, which encompasses all the members of this institution (whether or not they are involved in the management or in the equity); the organizational network, which includes all the people who take part in the business (at the top, middle, and low levels, familial or not); and the environmental network, which involves the external stakeholders, such as customers, suppliers, banks, and other institutions (Bauer, 1993).

In many cases, the family council is adopted in order to comprise the actual members of the family, including in some cases in-laws, young adults, and family members not directly involved in the business. The family council's task is to develop a new generation of family members, regulate their involvement in the business, and align the business with the family's plans (Jaffe, 2005: 50).

Civil laws

In a European context, the effects of differences in reporting practices may have been mediated, to some extent, by various EU Directives and the gradual adoption of international financial reporting standards. At the same time, national disclosure requirements have been increasing significantly as various regulatory, statutory and governance initiatives have sought to ensure greater transparency and accountability in response to financial scandals (Bozzolan et al., 2006: 95).

With reference to Italian small and medium firms, in the enabling decree (Lgs. D. 127 of 9 April 1991), articles 1-20 amended the Civil Code with respect to the provisions of the Fourth Directive whilst articles 21-46 set out a new law concerning groups of companies, no reference being made to the Civil Code in the latter case (Riccaboni and Di Pietra, 1996: 14).

Annual accounts of small and medium firms are regulated by the civil code which derives its rules from the Fourth Council Directive of 25 July 1978 based on article 54 (3) (g) of the Treaty (78/660/EEC) emended by various following Directives.

In the Directive 2003/51/EC of the European Parliament and of the Council of 18 June 2003, from which article 2428 of the civil code is derived, stated that the annual report shall include at least a fair review of the development and performance of the company's business and of its position, together with a description of the principal risks and uncertainties that it faces. The review shall be a balanced and comprehensive analysis of the development and performance of the company's business and of its position, consistent with the size and complexity of the business. To the extent necessary for an understanding of the company's development, performance or position, the analysis shall include both financial and, where appropriate, non-financial key performance indicators relevant to the particular business, including information relating to environmental and employee matters.

In this context, the Internet has become a critical transmission mechanism, and the corporate website now offers a fast, flexible, almost costless, and incredibly accessible method for disseminating data. Contemporary technological developments such as XBRL (eXtensible Business Reporting Language) have significantly enhanced the Internet's potential as a mechanism for transmitting information. XBRL is a worldwide standard for the publishing, exchange, and analysis of financial reports and data. The information can also be reliably extracted and analyzed across companies with no manual intervention; in fact XBRL provides a widely embraced open standard technology for data exchange and transformation, is likely to bring major changes to the way companies provide both compulsory and voluntary information to both investors and regulators, and will likely impact the way shareholders use accounting information. Information issued in the XBRL format enables investors and analysts to use and analyze precisely categorized information instantly, without the need to convert the data into another format. XBRL also offers significant benefits to both the suppliers and consumers of financial and nonfinancial information such as decreased costs of publication, reduced preparation time, simplified information access, wider information availability, and enhanced analytical capabilities (Schuster, 2006: 5).

Anti-frauds laws

Stolowy and Breton (2004) use an all-inclusive term, "accounts manipulation", which they define as "the use of management's discretion to make accounting choices or to design transactions so as to affect the possibilities of wealth transfer between the company and society (political costs), funds providers (cost of capital) or managers (compensation plans)" (p. 6). They partition "accounts manipulation" into "creative accounting", "earnings management", and "fraud" (Kalbers, 2009: 191).

Financial regulation is directed at the control of fraud and at the regulation of standards in the market and in the business and financial service. The regulatory approach is normally associated with the form of law and enforcement which developed in Italy at the end of the 19th century. A regulatory approach is associated with a minimal use of criminal sanctions, although it is important to recognize that this emerged out of a long history of negotiation between business groups, regulators and government. To regulatory approaches the main of law is to secure and

maintain high standards of business and commerce, and enforcement should ensure an appropriate balance between the interests of industry and public protection. Finally, regulatory enforcement is normally taken to involve cooperative compliance strategies including persuasion, advice and education (Croall, 2003: 45-46).

Legislative Decree No 61 of 11 April 2002 regulating criminal and administrative offences in respect of commercial companies, in accordance with Article 11 of Law No 366 of 3 October 2001 ('Legislative Decree No 61/2002'), which came into force on 16 April 2002, replaced Title XI of Book V of the Italian Civil Code by a new Title XI, entitled 'Criminal provisions in respect of companies or groups of companies'.

That legislative decree was introduced in the context of the reform of Italian company law carried out by a series of legislative decrees adopted on the basis of the authorisation provided for by Law No 366 of 3 October 2001.

In particular, Legislative Decree No 61/2002 introduced into Articles 2621 and 2622 of the Italian Civil Code new criminal provisions penalising the submission of false information on a company, an offence also referred to as 'false accounting' (Table 5).

<p><i>'Article 2621 (False information on a company)</i></p> <p><i>Save as otherwise provided in Article 2622, managers, directors, auditors and receivers who, with the intention of deceiving members or the public and with the aim of securing for themselves or others an unjust profit, make statements of substantive fact which are untrue in the company's balance sheets, report or other company documents provided for by law which are intended for members or for the public, even if such facts are the subject of valuations, or who omit information, the communication of which is prescribed by law, concerning the economic position, assets, liabilities or financial position of the company or the group to which that company belongs, in a manner which is capable of giving those to whom that information is addressed a false impression of that position, shall be liable to imprisonment for a term of up to one year and six months.</i></p> <p><i>The same criminal liability shall also extend to cases where the information concerns assets held or administered by the company on behalf of third parties.</i></p> <p><i>Criminal liability shall be excluded in any event where the false statements do not distort to an appreciable extent the representation of the assets, liabilities, economic position or financial position of the company or the group to which that company belongs. Criminal liability shall also be excluded where the false statements or omissions distort the pre-tax financial results for the year by no more than 5% or distort the net assets by no more than 1%.</i></p> <p><i>Such acts shall not be punishable in any circumstances where they are the result of estimates which, viewed individually, do not differ from the true values by more than 10%.</i></p>
<p><i>Article 2622 (False information on a company detrimental to members or creditors)</i></p> <p><i>Managers, directors, auditors and receivers who, with the intention of deceiving members or the public and with the aim of securing for themselves or others an unjust profit, make statements of substantive fact which are untrue in the company's balance sheets, report or other company documents provided for by law which are intended for members or for the public, even if such facts are the subject of valuations, or who omit information, the communication of which is prescribed by law, concerning the economic position, assets, liabilities or financial position of the company or the group to which that company belongs, in a manner which is capable of giving those to whom that information is addressed a false impression of that position and thereby occasion financial loss to members or creditors, shall, on complaint by the injured party, be liable to imprisonment for a term of between six months and three years.</i></p> <p><i>Proceedings shall likewise be initiated on complaint where the act constitutes a separate, more serious offence detrimental to the assets of persons other than members or creditors, unless it has been committed to the detriment of the State, other public institutions or the European Communities.</i></p> <p><i>In the case of companies subject to the provisions of Part IV, Title III, Section II, of Legislative Decree No 58 of 24 February 1998, the penalty for the acts provided for in the first paragraph shall be one to four years' imprisonment and a prosecution in respect of the offence may be brought ex officio.</i></p> <p><i>Criminal liability for the acts referred to in the first and third paragraphs of this article shall extend to cases where the information concerns assets held or administered by the company on behalf of third parties.</i></p> <p><i>Criminal liability for the acts provided for in the first and third paragraphs shall be excluded where the false statements or omissions do not distort to an appreciable extent the representation of the economic position, assets, liabilities or financial position of the company or the group to which the company belongs. Criminal liability shall in any event be excluded where the false statements or omissions distort the pre-tax financial results for the year by no more than 5% or distort the net assets by no more than 1%.</i></p> <p><i>Such acts shall not be punishable in any circumstances where they are the result of estimates which, viewed individually, do not differ from the true values by more than 10%.'</i></p>

Table 5 - Financial statement fraud crimes civil code articles

The crime set forth by art. 2621 of the Italian Civil Code is committed when - with the purpose of deceiving the shareholders or the public and of obtaining for the offender or for others an

unlawful profit - statements, reports or other company notices and announcements, set forth by the law, addressed to shareholders or the public, contain material facts not corresponding to the truth, even if still under evaluation, or they fail to include information that is mandatory according to the law regarding the economic, assets and liabilities, or financial situation of the company or of the group to which it belongs, in a way that leads recipients to erroneous deductions on the above-mentioned situation. Liability is excluded if the false statements or the omissions do not alter in a significant way the representation of the economic, assets and liabilities, or financial situation of the company or of the group to which it belongs. Liability is however excluded if the false statements or omissions determine a change in the accounting's economic result, gross of withholdings, not exceeding 5 per cent or a change of the net assets and liabilities not exceeding 1 per cent. In any case, there is no liability if the conduct arises from estimates that - if individually considered - differ in an amount not exceeding 10 per cent compared to the correct one.

The crime set forth art. 2622 of the Italian Civil Code is committed when, with the purpose of deceiving shareholders or the public and of obtaining for the offender or for others an unlawful profit, the financial statements, reports or other company notices and announcements provided by the law, addressed to shareholders or the public, contain material facts not corresponding to the truth, even if still under evaluation, or the omission of information that is mandatory according to the law regarding the economic, assets and liabilities, or financial situation of the company or of the group to which it belongs, in a way that leads addressees to erroneous deductions on the above-mentioned situation, causing a patrimonial damage to the company, to shareholders or to creditors. The two crimes set forth articles 2621 and 2622 of the Italian Civil Code, indicate a conduct that almost entirely coincides and differs only in the event of the occurrence, (art. 2622 Italian Civil Code) or non-occurrence (art. 2621 Italian Civil Code) of a fact causing a patrimonial damage to the company, to its shareholders or to its creditors. Both the above-mentioned crimes are committed: (i) stating in financial statements, reports or other company announcements and notices as provided by the law, aimed at shareholders or the public, material facts that do not correspond to the truth (ii) through the omission, in the same documents, of information, that are mandatory by law, regarding the economic, assets and liabilities, or financial situation of the company or of the group to which it belongs; the above-mentioned conduct (commission or omission) must be carried out with the intention of deceiving the shareholders or the public and must lead the recipients of the abovementioned company notices and announcements to erroneous deductions since they are intended only to obtaining an unlawful profit for the offender or of third parties.

In particular:

- false or omitted information must be of such a nature to significantly misrepresent the information on the economic, property or financial situation of the company or of the group to which it belongs;
- criminal liability exists even if information concern property owned or administered by the company on a third party's behalf;
- the crime defined under art. 2622 of the Italian Civil Code will be punished on the basis of charges filed by another party with the exception for the crime being

committed to the detriment of the State, of other public bodies, of the EU or in case listed companies are involved. In this latter event, ex officio proceeding is envisaged.

Subjects that can be punished for this crime are Directors, General Managers, Managers in charge of drawing up the company's accounting statements, Auditors and Liquidators. According to the Court, percentage thresholds on criminal liability for false statements as outlined above cannot be qualified as 'preferential laws' because they do not subtract specific acts from the sphere of application of a more general criminal rule. They only constitute specific elements of punishable conduct introduced by legislators in the exercise of their exclusive discretion and power over criminal policies (Italian Constitutional Court, Judgment No. 161/2004).

Some scholars, write over and above the obligation of individuals and companies to comply with the law, a corporate culture of compliance is probably the single most important bulwark against the emergence of criminal practices among company agents. A corporate compliance function essentially addresses the legal and reputational risk that a company faces from the behaviour of its agents and organs (Nestor, 2004: 348).

The leading reasons cited in international literature for the expected increase in fraud are: a) economic pressures, b) inadequate punishment of convicted managers, c) weakening of society's values, d) insufficient emphasis on prevention and detection, and e) more sophisticated criminals. Poor internal controls, management override of internal controls, and collusion between employees and third parties are also seen as factors contributing to fraud. One important issue is the determination of the causes and the provision of an explanation for the situation (Belkaoui and Picur, 2000: 33).

In Italy, all the five reasons might so these changes toward a more lenient criminal law for accounting fraud were based on the assertion that financial standards had been too onerous for non-listed companies. Instead of a "one-size-its-all provision," a multi-tiered approach was claimed to be more appropriate.

Beasley (1996) shows that the incidence of financial statement fraud is negatively related to the proportion of outside directors of the board. The presence of an audit committee does not significantly affect the likelihood of financial statement fraud (Cox and Weirich, 2002: 375). Bonner *et al.* (1998) demonstrates the relationship between the type of fraud and litigation. They concluded that there existed some support for the hypothesized higher incidence of auditor litigation when a company's financial statements contain a fraud that is commonly occurring or that involves fictitious transactions and events (Cox and Weirich, 2002: 375).

Overall, the results suggest that size is a strong factor in predicting companies laws compliance. Larger firms are more likely to be in compliance with companies law than smaller firms. This result is robust to a variety of specifications (Webb, 2008: 21)

Tax laws

The law of 7 April 2003 n. 80 (G.U. n. 91 of the 18 April 2003) previews a deep rearrangement of the fiscal system, with the reduction of the several taxes existing today to five main taxes,

collected in a single code: income tax, companies' income tax, value-added tax, services tax, inland duty. The reforms aimed to the gradual elimination of the regional tax on productive activities (IRAP).

The tax of companies' income (IRES) is based on the application of a single rate of 27,5 %, will also foresee the possibility for companies to ask for a national and international fiscal consolidation system, fiscal neutrality for capital gains from the sale of participation interests (participation exemption) the extension of the CFC rules (foreign controlled companies) to the connected companies. The income corporation tax, is paid by companies that have corporate status, therefore stock corporations, limited companies, mutual companies, private and public organisations that both have and do not have business as their main activity (including associations, consortiums). It is also paid by companies and organisations, with or without corporate status, that do not reside but have permanent establishment in Italy.

The corporate tax base is obtained first by applying the relevant positive and negative adjustments to the business profit (loss) and then subtracting some expenses relating mainly to charities and gifts of the company towards specific institutions or for specific aims (Table 6).

<p><i>Profit (loss) resulting from the balance sheet</i></p> <p>+ <i>positive adjustment</i></p> <p>- <i>negative adjustment</i></p> <p>- <i>extra deductions (charities and gifts to specific institutions or for specific purposes)</i></p> <p>= <i>Corporate income for tax purposes</i></p> <p>+ <i>Dividend tax credit</i></p> <p>- <i>Losses from previous periods brought forward</i></p> <p>= <i>Taxable income</i></p>
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Table 6 - The spine of the corporation income tax

Corporate income relevant for fiscal purposes is obtained from total business profits (loss) resulting from the company balance sheet adjusted according to specific fiscal rules. Specifically, components of the business profits have to be modified in order to take account of specific fiscal criteria, which may affect positively or negatively the corresponding accounting variables. These fiscal adjustments reflect the difference existing between the conventional accounting rules and business accounting for tax purposes.

Since both financial reporting and taxation have the need for economic results in common, it seems reasonable to connect the two systems in a way that allows reference from one system to the other. In Italy, taxation depends on financial reporting: so all entries in the books are relevant for taxation. The fact that taxation depends on financial reporting can lead to the reverse effect, namely the influence of tax rules on financial accounting. First, the taxpayer, knowing that entries in the books are relevant for taxation, might tend to understate his profits and exaggerate his expenses, in order to minimize taxation. Second, in order to minimize the workload of the reconciliation for tax purposes, the company let tax law prevail over the objective of the financial reporting. Third, in some cases tax law requires that in order to benefit

from these tax benefits, tax reporting techniques have to be used in the financial statements (Eberhartinger, 1999: 94-95).

In a general sense, the firm's taxation decisions are deliberate and the implications for strategy are intended outcomes. Firms incur a high level of expenditure attempting to obtain the best tax position, often both employing in-house expertise and using the services of external, expert tax consultants. It is to be expected therefore that tax decisions will be a carefully thought-through part of the strategy process (Galister and Hughes, 2008: 37).

In Italy, like in some other countries, financial reports effectively reflect tax laws, which are in turn influenced by political, economic, and social objectives, such as promoting or discouraging certain types of economic activities, promoting employment, controlling inflation, or redistributing wealth. Because the primary objective of tax rules is not to satisfy the information needs of capital market participants, financial and tax reporting provides incentives to reduce taxes by reporting systematically lower profits, and this too undermines the value relevance of financial reports (Ali and Hwang, 2000 :5-6).

Stakeholders behaviour and corporate social responsibility

A *primary* stakeholder group is one without whose continuing participation the corporation cannot survive as a going concern. Primary stakeholder groups typically are comprised of shareholders and investors, employees, customers, and suppliers, together with what is defined as the public stakeholder group: the governments and communities that provide infrastructures and markets, whose laws and regulations must be obeyed, and to whom taxes and other obligations may be due. There is a high level of interdependence between the corporation and its primary stakeholder groups (Clarkson, 1995: 106)

Secondary stakeholder groups are defined as those who influence or affect, or are influenced or affected by, the corporation, but they are not engaged in transactions with the corporation and are not essential for its survival. The media and a wide range of special interest groups are considered as secondary stakeholders under this definition. They have the capacity to mobilize public opinion in favor of, or in opposition to, a corporation's performance (Clarkson, 1995: 107)

Classes of stakeholders can be identified by their possession or attributed possession of one, two, or all three of the following attributes: (1) the stakeholder's power to influence the firm; (2) the legitimacy of the stakeholder's relationship with the firm, and (3) the urgency of the stakeholder's claim on the firm. The manager's perception of a stakeholder's attributes is critical to the manager's view of stakeholder salience (Mitchell *et al.*, 1997: 854, 871).

The preparation of a report on CSR, sustainability, environmental respect or corporate governance appears as a process that reveals a rather high level of subjectivity due to the wide variety of possible options available to an organization for selecting, measuring and disclosing information on these issues (Zambon and Del Bello, 2005: 138-139)

In recent years there has been increasing dissatisfaction with traditional financial reporting and its ability to provide stakeholders with sufficient information on a company's ability to create wealth (Bozzolan *et al.*, 2003: 543).

Although firms employ a wide variety of communication to report their stakeholder engagement efforts, traditionally, voluntary disclosure made in the annual reports is the single most comprehensive and most frequently employed mechanism for reporting engagement initiatives (Boesso – Kumar, 2009: 64).

Internal and external audit

Internal auditing is a sub-field of auditing that has been continuously evolving (Birkett *et al.*, 1999a, 1999b) requiring synthesis of research findings (cf. Allegrini *et al.*, 2006) and constant updating of the professional body of knowledge (Abdolmohammadi *et al.*, 2006).

Audit committees and an effective internal control system help to minimise financial, operational and compliance risks, and enhance the quality of financial reporting.

Auditing standards explicitly require auditors to provide reasonable assurance that material financial statement fraud is detected (Beasley, 1996: 444)

The main purpose of establishing audit committees is to assist the directors to function efficiently. In this respect the aims are threefold: first, to increase confidence in the credibility and objectivity of the company's published financial information; secondly, to assist directors in meeting their financial responsibilities; and thirdly, to strengthen their independent position (Hemraj, 2003: 153).

Internal auditing is an independent professional service which is not regulated by Italian laws and which is adopted in only a few Italian small and medium firms.

Watts and Zimmerman (1983) posit that auditors act in the interest of the managers that hire them, rather than in the interest of the firms' investors. They report evidence that is weakly consistent with this hypothesis using data on auditors' responses to proposed new accounting standards. An alternative explanation is that auditors provide formal assurance only on the annual report, making it difficult for them to provide timely signals to the capital markets. A third explanation is that auditors are concerned about minimizing their legal liability, rather than enhancing the credibility of financial reports. Accordingly, they lobby for standards that reduce their own risk, even though such standards reduce the value of financial reports to investors. Future research may be able to distinguish between these explanations (Healy and Palepu, 2001: 416).

The Internal Audit efforts implemented after the Legislative Decree 231/2001 which regards the administrative liability of corporations. Under this law the company is liable for crimes committed in its interest or to its benefit by individuals who represent, administer or manage the Company (Miglietta *et al.*, 2007: 50).

The Company is exempt from liability for the crimes committed by the aforementioned individuals, if it proves it has adopted and effectively implemented appropriate organizational and management models to avoid the crimes.

Furthermore it has to have charged an internal Board (i.e. Supervisory Body) with monitoring the functioning of and compliance with the models adopted.

The exemption from administrative liability for crimes is, for enterprises, an opportunity to reduce the risk of legal action, lawsuits or juridical proceedings (legal risk).

Firstly, the Board of Statutory Auditors verifies compliance with the law and with the articles of association and observance of the principles of correct administration. During the year, the Board of Statutory Auditors holds meetings, as well as additional informal sessions; at meetings of the Board of Statutory Auditors and the Board of Directors, and at least once per quarter, they obtained information from the Executive Directors concerning general business performance, the Company's business outlook, and the most significant transactions in terms of size and characteristics undertaken by the Company, including with respect to its subsidiaries; they took part in two Shareholders' Meetings and thirteen meetings of the Board of Directors, which were held in accordance with the articles of association and the legislative provisions that govern the functions of such meetings.

Secondly, the Board of Statutory Auditors assesses and verifies the adequacy of the organizational, administrative and accounting system and the reliability of said system to correctly represent operating circumstances by obtaining information from the respective department managers and examining Company's documents.

Thirdly, having followed the work done by the Internal Audit Office, including that managed and coordinated by the Internal Control Officer and by the Audit Committee, they confirm that the internal control system adopted by the Company is fully adequate.

Finally, the Board of Statutory Auditors attests that: (1) in the preparation of the accounts the standards laid down by Article 2423-bis of the Italian Civil Code have been complied with and there have been no deviations from the established accounting principles pursuant to the fourth paragraph of Art. No. 2423 of the Italian Civil Code; (2) the application of the Italian Civil Code provisions for the preparation of the accounts is consistent with the truthful and correct representation of the accounts.

As to information for stakeholders, the Board of Statutory Auditors has to control the Board of Directors' Report, prepared in accordance with Art. No. 2428 of the Italian Civil Code, and, in a particular way, if it gives full information relative to the performance of the company ...

In Italy, a separate board of auditors has traditionally performed the internal audit functions. Neither the board of directors nor the board of auditors have ever been able to exercise effective control over managers (and hence over the dominant shareholders who appoint them). More generally, Italian corporate law has historically provided poor protection for investors, while enforcement institutions, like courts or the Italian securities and exchange commission (Consob), have been unable to make up for the deficiencies of the law (Enriques and Volpin, 2007: 128).

The external auditing, in Italy, can be carried out by an independent professional auditors under three different forms which only partially overlap:

- 1) *società di revisione* (audit company) (legislative degree n.58/1998)
- 2) *revisore esterno* (legislative degree n.88/1992)
- 3) *collegio sindacale*.

The small and medium entity usually have a collegio sindacale which prepares an annual report included in the financial statements. From 2009, with local audit standard n.1 (Principio di revisione) for annual report there is a legally prescribed format that can ensure stakeholders about the degree of reliance that can put the credibility of financial statements and other documents.

Accounting professionals role in the firm

The Italian accounting profession belongs to the broader field of liberal arts - unique at international level. The regulation of the Italian accountancy profession has been completely reformed by the legislative decree nr. 139 enacted on 28 June 2005.

On January 1st 2008 the Ordine of Dottori Commercialisti and the Collegio of Periti Commerciali - professions established in the first half of last century and linked by common competences and purposes - merged in the Albo Unico of Dottori Commercialisti and Esperti Contabili (Legislative Decree no. 139 of 28.6.2005).

Two section will be created in the new roll: section A will be staffed by the “dottori commercialisti” (chartered accountants), and the section B by the “esperti contabili” (accounting experts).

The functions of this profession have steadily evolved, constantly expanding its areas of specialization and forms of consulting (Table 7).

		<i>DOTTORI COMMERCIALISTI</i>	<i>ESPERTI CONTABILI</i>
<i>Total</i>	<i>107,499</i>	<i>61%</i>	<i>39%</i>

Table 7 – Accounting professionals in Italy

Accounting professionals are the key advisers of enterprises. They oversee their entire course of life from birth - preparing business plans and associated economic, financial and tax evaluations - to development - offering financial, bookkeeping and legal advice, troubleshooting and auditing operations - to the eventual termination of activity - where assessments of the legal and economic propriety of operations are necessary. Accountants also participate in extraordinary corporate operations by providing advice on contracts, transactions and arbitration proceedings, or by offering operating advice in the case of corporate restructuring or subjection to administration by a commissioner.

FINANCIAL REPORTING AND VOLUNTARY DISCLOSURE IN A STRATEGIC PERSPECTIVE

System dynamics is an aspect of systems theory as a method for understanding the dynamic behavior of complex systems. The basis of the method is the recognition that the structure of any system — the many circular, interlocking, sometimes time-delayed relationships among its components — is often just as important in determining its behavior as the individual components themselves.

System dynamics is an approach to understanding the behaviour of complex systems over time. It deals with internal feedback loops and time delays that affect the behaviour of the entire system. What makes using system dynamics different from other approaches to studying complex systems is the use of feedback loops and stocks and flows. These elements help describe how even seemingly simple systems display baffling nonlinearity. The elements of system dynamics diagrams are feedback, accumulation of flows into stocks and time delays.

In Italian *economia aziendale* system dynamics is applied in modelling strategic management and performance (Coda, 1988) and strategic dynamics (Coda and Mollona, 2006) (Figure 1).

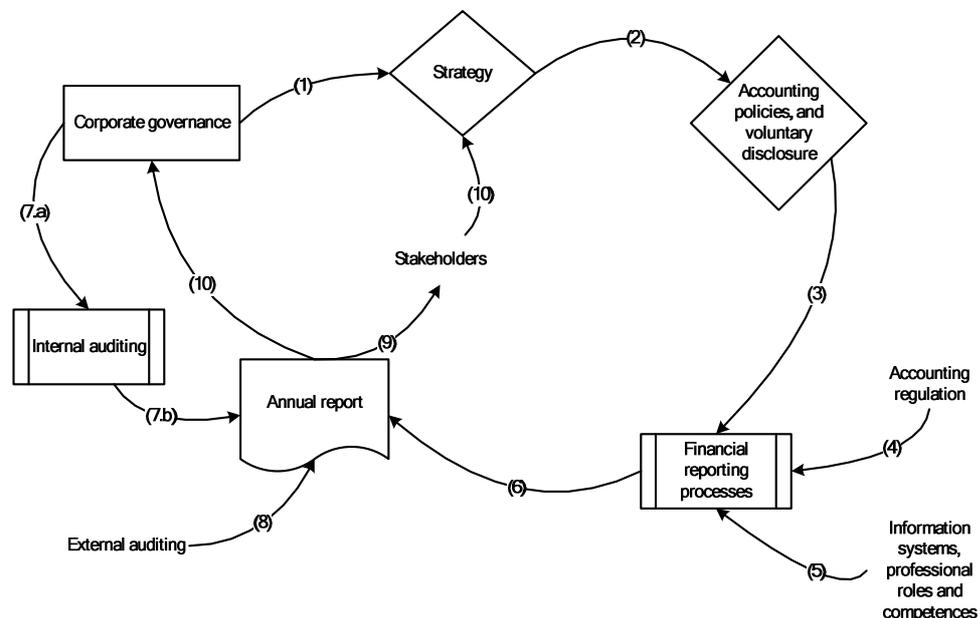


Figure 1 – The strategic dynamics model proposed

Relation (1) The strategy process usually involves both an intentional strategy process and an emergent process. However, while most firms have both types of processes at work, their respective importance will differ. It is possible to envisage a strategy process continuum. At one extreme are firms in which the strategy process is very deliberate and formalized and where managers are constrained from deviating from the intended strategy. At the other extreme are firms that have no formal strategic planning process, where senior managers devote little time to intentional strategy process. These firms rely on the independent or 'autonomous' action of managers that occurs outside any formal strategy. At this end of the continuum the line managers initiate the activities that, in aggregate, constitute firm strategy. Apart from these extreme cases, most companies follow a hybrid process and rely on a combination of intentional and emergent processes. They have both a formal, intentional process in which senior managers

articulate strategy, and a process in which a middle manager or a line manager can undertake a project outside the intended strategy (Mintzberg and Waters, 1985).

The basic strategic management processes for both family and non-family firms is similar in the sense that a strategy, whether implicit or explicit, must be formulated, implemented, and controlled. The differences are in the set of goals, the manner in which the process is carried out, and the participants in the process. In family firms, the owner-family is likely to influence every step of the process, whereas in nonfamily firms, family influences are at best (or worst) indirect (Sharma, Chrisman, and Chua, 1997: 2-3).

Board strategic involvement in small firms are somewhat conflicting. Some researches show that the board of small firms tends to be rather passive in its strategic involvement, and even claim that the strategic participation is not the dominant activity of the board in very small firms unless they are specific contextual conditions (Pugliese and Wenstop, 2007: 386).

A family business is more likely to have multiple, complex, and changing goals rather than a singular, simple, and constant goal. Tagiuri and Davis (1992) found the following to be the six most important goals: to have a company where employees can be happy, productive and proud; to provide financial security and benefits for the owner; to develop new quality products; to serve as a vehicle for personal growth, social advancement, and autonomy; to promote good corporate citizenship; and to provide job security. Because of the variety of goals in small family businesses, the various partial success measures will not provide uniformly appropriate success indicators for different small family businesses. Measuring success with different isolated partial success measures will thus indicate various levels of success for one and the same business and, as a consequence, also yield inaccurate comparative results across multiple companies in the same sample. These isolated partial success measures will also be influenced by company size, company age, industry and other variables that might not indicate success alone (Sharma, 2004).

Family firms are arenas characterized by financial and non-financial family goals. When financial goals prevail in a family, family members' motivation to operate in the family firm will be based on lower order needs and extrinsic factors, thus favoring the emergence of agency relationships. On the contrary, when nonfinancial goals prevail, this will foster motivation based on higher-order needs and intrinsic factors, thus favoring steward-principal relationships (Corbetta and Salvato, 2004: 357-358).

The nature of the founder's role in the family firm's development, understanding, and commitment to a vision, a set of goals, and a culture can be viewed in terms of the centrality of her/his position in the firm's top management group network. Four types of family business culture have been identified: paternalistic, laissez-faire, participative, and professional (Dyer, 1988). To have an effective firm strategy, founders must have a clear understanding of the organizational culture they have inspired and of its fit with the family firm's culture (Kelly, Athanassiou, Crittenden, 2000: 29).

Relation (2) Prior studies find that the quality of corporate disclosure is associated with certain firm characteristics. These studies measure corporate disclosure by developing a disclosure index or score to measure voluntary disclosure in financial statements.

Generally speaking, board composition (measured by the proportion of outside directors) is expected to be positively associated with voluntary disclosure. The role of the board of directors is to monitor management decisions. Having a higher proportion of outside non-executive directors on the board would result in better monitoring of the activities by the board and limit managerial opportunism (Fama, 1980; Fama and Jensen, 1983). Outside directors who are less aligned to management may be more inclined to encourage firms to disclose more information to outside investors. Then, it is expected that having more outside directors on the board will also result in more voluntary disclosure. Voluntary disclosure is measured by the amount and detail of non-mandatory information that is contained in the management discussion and analysis in the annual report (Eng and Mak, 2003: 327).

Relation (3) The financial reporting process, therefore, finds nourishment in the accounting policies, in relation to those, will be directed between the limitations imposed by the accounting regulation and will insert the content of voluntary disclosure who have been chosen.

Relation (4) Management decisions may cause financial reporting to range from “high quality” at one end of the spectrum to fraud at the other end. Some management behavior in financial reporting may be considered unethical, but not necessarily fraudulent (illegal). Because financial reporting is not an exact science, the competence and integrity of management are both relevant in preparing high quality financial reports (Kalbers, 2009: 195). The use of generally accepted accounting principles serves the need of a better quality of the information given by the financial statements and a consequent more effective accountability of the controlling agents (Pizzo, 2000).

The institution of more and more detailed accounting principles and procedures limits the controllino agent’s discretion in the drawing up of the financial statements (Melis, 1995).

This may have a positive influence on the corporate governance system, since by controllino and manipulating the quality of corporate information disclosed in the financial statements, the dominant stakeholder (i.e. the one that effectively controls the corporation) would be able to influence the uncertainty attached to the estimates that shareholders (and, in general, all the strategic stakeholders) make of any given variable (Forker, 1992). By doing so, the dominant stakeholder would make monitoring procedures less effective, thus he/she would become less accountable to the other strategic stakeholders.

Relation (5) An important role is played by the resources and skills that are available to that process, even in terms of specific skills in communication (Coda, 1991,b: 57-58) also consider the role of “Dottore commercialista ed esperto contabile” (Accounting professional). He brings accounting culture in the firm. In Italian SME he chooses, most often, accounting software and set the plan of accounts and suggests the most appropriate earnings management and tax planning or directly exercise discretion in the preparation of financial statements and decides accounting polices.

Relation (6) The result of the administrative process that is downstream of the guidelines of corporate strategy and the accounting policies and financial reporting processes is made by the annual report.

Relation (7) The need to optimize company risk assessment as a critical factor in achieving their own strategic aims, the international and national financial scandals, often a result of the weak internal control systems of the companies involved and the general inadequacy in the running of the same, as well as the frequent problems of internal revision, organization on behalf of the administrators and management responsibility, are all factors to be considered positive and stimulating because aimed at improving the administration of SME companies, in respect of the accounting rules and the interests of all the stakeholders.

Relation (8) The external audit is intended to enhance the credibility of the financial statements of a firm. Auditors are supposed to verify and certify the quality of financial statements issued by management. However, over the last several decades, a substantial and increasing portion of an accounting firm's total revenues have been derived from consulting services of various kinds. Provision of these nonaudit service can potentially hurt the quality of an audit by impairing auditor independence because of the economic bond that is created between the auditor and the client (Agrawal and Chadha, 2005: 376).

Relation (9) To what extent do other factors, such as the legal protection of investors' rights or other corporate control mechanisms, the auditing regime, or the relative importance of securities markets versus bank financing, influence the economic effects of financial accounting information? We expect the interactions between the quality of financial accounting regimes and effectiveness of corporate control mechanisms to provide evidence on the governance effects of financial accounting information per se. We expect the interactions between financial accounting regimes and other domestic institutions to provide evidence of the determinants of the total economic value of financial accounting information from better governance as well as other channels. The fourth theme is how the economic effects vary with specific features of the accounting regimes (Bushman and Smith, 2001: 292-293)

The active role of the reporting activity, resulting from the concrete way the stakeholder oriented report is constructed, has two orders of consequences: (1) to guide company activities through a particular representation of the results (perceived as objective), on the basis of which the company reacts by adjusting its objectives, actions, and activities; and (2) to concretize the stakeholder oriented concepts, namely CSR, sustainability, environmental respect and corporate governance: directly – through the narrative parts of the report, such as conceptual definitions and discursive descriptions of the stakeholder oriented activities performed; and or indirectly – through the structure and content of the data reported, that contribute to visualize and diffuse a company-specific picture of the concept (Zambon and Del Bello, 2005: 135).

Relation (10) The presence of a dominant stakeholder (top management, blockholder, large creditor, etc.) may influence negatively the quality of corporate communication, by making the financial reporting system pursuing his/her own interests, rather than pursuing the overriding "true and fair view" objective.

If unaccountable, the dominant stakeholder has an incentive to have an opportunistic behaviour.

He/she is likely to select accounting procedures to maximise his/her own utility (Gordon, 1964), manipulating the information in the financial statements to pursue that goal.

In fact, the presence of a dominant stakeholder was found to be associated with poor disclosure (Forker, 1992) and an overall inadequate quality of corporate communication (Fiori, 1999).

From a normative perspective, the presence of a dominant stakeholder should not have a significant influence on the quality of corporate communication, since the information flow should not be manipulated by the stakeholder who controls the corporation (Dezzani, 1981).

Wartick and Cochran (1985), following Carroll (1979), used the terms reactive, defensive, accommodative, and proactive to characterize corporate strategy or posture toward social responsiveness. This approach was converted into the RDAP Scale (Clarkson, 1995: 108).

Fairness and balance in the distribution to its primary stakeholder groups of the increased wealth and value created by the firm are necessary to preserve the continuing participation of each primary group in the firm's stakeholder system and to avoid favoring one group unduly and at the expense of other groups. If any primary group perceives, over time, that it is not being treated fairly or adequately, whether it is the employee, customer, or shareholder group, it will seek alternatives and may ultimately withdraw from that firm's stakeholder system. If that withdrawal occurs, the firm's survival will be threatened (Clarkson, 1995: 112).

Research has revealed significant variations in perceptions of family firm stakeholders regarding even the most fundamental issues (Poza, Alfred, & Maheshwari, 1997). Particular importance has to be paid to understand the extent of a alignment in the definition of success used by the key players of family firms. The tenets of stakeholder theory may prove useful in gaining such an understanding. An alignment of stakeholders' perspective on what "success" means to them could be an important predictor of success of family firms, as such an alignment can lead to agreement on appropriate mode and extent of involvement of key family and nonfamily members in the firm. On the contrary, a mismatch in the definitions of success or goals that different stakeholders strive to achieve for the family firm could point toward a tenacious source of conflict (Astrachan and McMillan, 2003).

LIMITATIONS OF THE PAPER AND FUTURE RESEARCH DIRECTIONS

The authors would acknowledge a number of limitations of this study. First of all, the study is based on a theoretical basis. Future research aimed at examining, by surveys and case studies, relationships between the variables of the model needs, in order to explain and predict corporate financial disclosures in Italian small and medium firms, are planned.

Hence, we propose a preliminary explanation of the influence of some involvement variables on voluntary disclosure and financial reporting quality. In particular, this article makes a contribution by integrating different theoretical perspectives on boards and their related roles, with concepts capturing from mainstream Italian *economia aziendale* literature approaches referring to corporate governance, information systems, internal auditing, accounting regulation, earnings management, and stakeholder theory.

The resulting model has some contingency qualities, although limited to considering some strategy, accounting policies, voluntary disclosure, financial reporting processes, accounting regulation, professional roles, external and internal auditing, and so on.

Our model may also be subject to relatively straightforward empirical testing.

Empirical approaches can be used to measure the comparative effects of these various dimensions in order to determine those that are most influential in fraudulent financial reporting. From a methodological point of view, identifying the population of firms involved in fraudulent financial reporting is problematic. First and foremost, fraud samples are limited to only discovered fraud. Frauds never discovered are not available for study. Frauds that are caught by the auditor and/or firm and subsequently corrected within the company are generally not revealed publicly and therefore, are similarly, not available for study (Kaminski et al., 2004: 21).

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ACADEMIC ENTREPRENEURS' ROLE IN SCIENCE-BASED COMPANIES.

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Purpose - The aim of this paper is to present the results of a study examining the role played by academic entrepreneurs in science-based companies grown in university incubators. We aim to verify if the presence of academic entrepreneurs improves survival skills and economic and financial performances of science-based companies when these leave the incubator. Moreover, we aim to verify if different levels of involvement of academic entrepreneurs (i.e. as shareholder, as member of board of directors, or both) can bring to different levels of financial performance.

Design/methodology/approach - The research has been carried out on a sample of science-based companies based, mainly in Northern Italy, and composed by 49 companies graduated from the Turin Polytechnic's Incubator, called I3P. Data about the presence of academic entrepreneurs have been obtained interviewing I3P CEO while companies' survival skills and financial performance have been assessed by calculating economic and financial indexes (i.e. Altman Z score, ROI, ROE). Statistical correlation has been analysed using SPSS.

Findings - The statistical analysis shows that there is a negative correlation between the variable used for addressing academic entrepreneurship and that used for evaluating companies' performance. However, it seems that there is a positive correlation between a deep involvement (both as shareholders and directors) of academic entrepreneurs and financial performance of analyzed companies.

Originality/value - While there is a broad attention on incubated companies, there are only few researches regarding graduated companies. We focused our attention on the role played by academic entrepreneurs in graduated companies.

Paper type Research paper

Keywords Academic entrepreneurship, science-based companies, university incubator, economic performances.

INTRODUCTION

Universities give their contribute to the growth of the economy with the creation of research centres and laboratories and sometimes with the establishment of scientific parks and incubators. In these structures science advances find the right environment and can lead to the creation and the development of new products and services. In an incubator ideas coming from scientific discoveries can be developed in start-up companies if the technology transfer process from universities to business is effective. Usually incubators and scientific / technological parks offer different advantages to start-up companies (i.e. a site, laboratories for scientific tests, secretary services, logistic services, etc...). Start-up companies pass only the first period of their life in the incubator and then leave. The industries in which these science-based companies are involved are very risky and so, while some of them continue their growth even out of the incubator, some others aren't able to stay in the market. Between the survived science-based companies, some obtain satisfying economic performances while some others earn only little profits. The presence (or not) of academics entrepreneurs in the board of science-based companies born and grown in

an incubator could be one of the reasons of the different performances of these companies. Even the role (only shareholder, only director or both) played by academics in science-based companies could influence economic and financial performances.

BACKGROUND TO THE RESEARCH

The role played by Universities in relation to entrepreneurial development has been investigated by different points of view. A research about 45 incubators (Allen, 1985) documented the various services offered and the role played by Universities in sustaining and fostering the growth of young entrepreneurial firms.

Others (Bonaccorsi and Piccaluga, 1994) developed a theoretical framework and a taxonomy to study university-industry relations. Other researches assessed the effects of business-university alliances on innovative output and financial performance (George et al, 2002) and pointed out the importance of university link and knowledge flows on the overall firm performance (Rothaermel and Thursby, 2005a).

This explain the widespread literature that exists about incubators and related companies (Wright, 2003). The function of university technology business incubators has been previously studied by providing conceptual frameworks for assessing and managing them (Mian, 1997) and by studying the relations between incubators and science parks too. Others argued the importance of close links among different knowledge provider entities (Aernoudt, 2004), (Phan et al., 2005).

Also Italian incubators has been studied, in particular by assessing their effectiveness in term of developing start-up companies, by showing that on-incubator firms perform better than off-incubator firms (Colombo and Delmastro, 2002) and that the firm propensity to a broad use of incubator's resources and support increases with the progression of its lifecycle (McAdam and McAdam, 2008).

Another branch of studies focused on academic spin-off companies (Lockett et al., 2005), (Mustar et al., 2006), for example by studying the national trends (Chiesa and Piccaluga, 2000) or exploring the typologies of companies originated in universities (Druilhe and Garnsey, 2004). By focusing on the venture capital activity in relation to the lifecycle of target firms, some best practices were developed for universities' incubator management (Wright et al., 2006). Finally others pointed out the role played by intellectual transfers (Cesaroni and Piccaluga, 2005) and studied knowledge management in an organizational perspective (Becker and Gassmann, 2006).

Many researches focused on the characteristics of entrepreneurs, some even on academics entrepreneurs, i.e. studying their attitudes and organizational characteristics (Grandi and Grimaldi, 2005). Another branch of researches focused on the behaviour of academics after the beginning of business activities: i.e. modifications of role identity (Jain et al., 2009), modifications of their research productivity (Lowe and Gonzales-Brambila, 2007).

In our opinion, there is a lack of research about the presence of academic people crossed by financial performances of science-based companies. Hence, the aim of this research is to analyse science-based companies born in incubators and to verify if the presence of academic people can strengthen or weaken the economic and financial performances of those firms. In particular we

aim to validate the hypothesis H1: Companies with academic entrepreneurship have better survival skills than other graduated companies. A past research showed that the entrepreneurial attitude of academics is related to effective technology transfer and can enhance the commercialization of research outputs (Renault, 2006). Besides, a positive effect could be related to a close link to research gains, to the availability of advanced technology and to continuous knowledge flows. However the presence of academic people could have a negative correlation with firms' economic and financial performances. The reason could be related to a lack of management skills and entrepreneurial experience of academics or to a lack of time caused by their academic commitments. Even the conflicts between the University and business cultures could sometimes depress the performance of science-based companies (Cyert and Goodman, 1997). A further aim of this research is to verify if different levels of involvement of academic entrepreneurs (i.e. only as shareholder, only as director, both shareholder and director) can bring to different levels of financial performance. Therefore, we aim to validate a second hypothesis H2: Higher grade of involvement of academic entrepreneurs can lead to better financial performance.

RESEARCH METHODOLOGY

This research study has been carried out on companies "graduated" by Italian incubator I3P where I3P stands for "Innovative Enterprise Incubator of Turin Polytechnic". This incubator is a non-profit joint-stock consortium built by Turin Polytechnic and other public entities.

I3P was established in 1999 to promote and support the creation of hi-tech enterprises, grouping the innovative potential developed in research institutions in Piedmont area.

In 2004, I3P was awarded by Oxford University as the world's best science-based incubator, after Tsinghua Science Park in Beijing in 2002 and the BioBusiness Centre in Oxford in 2003.

In this incubator, the maximum period a company can stay in the incubator is three years and then it must leave/graduate.

As at May 2009, no. 61 companies were reckoned as graduated by the incubator (Source I3P website); the companies belong to different industries and have different ownership structures. These organizations have to be considered small enterprises because their maximum annual turnover is not more than euro 1.5-2 millions and the average number of employees is between 2-10.

In the following table, there is a breakdown of these graduated companies.

	<i>Partnership firms</i>	<i>Limited companies</i>	<i>TOTAL</i>	<i>%</i>
<i>Aerospace</i>	-	1	1	1.7%
<i>Biotech</i>	1	1	2	1.7%
<i>Building & Architecture</i>	-	1	1	1.7%
<i>Chemicals & Material</i>	-	1	1	1.7%
<i>Electronics & Automation</i>	3	12	15	23.3%
<i>Energy</i>	-	4	4	6.7%
<i>Environment & Territory</i>	-	3	3	6.7%
<i>Information Technology</i>	3	27	30	50%
<i>Mechanics</i>	1	3	4	6.7%
<i>TOTAL SAMPLE</i>	8	53	61	100%
<i>Available financial statements</i>	-	49		

Table 1: Industry and ownership structure of the graduated companies.

Due to the fact that in Italy only limited companies provide public financial statements this research focused only on the no. 53 limited companies which account for 87% of the total graduated companies. Of these no. 53 limited companies we found financial data only for no. 49 companies (which account for 92% of the total limited companies).

These data were found directly by requesting the companies' financial statements (for years 2005, 2006, 2007) from the Italian Chamber of Commerce; shareholders and directors' lists were requested with financial statements.

Subsequently, in order to analyse the characteristics of the entrepreneurs in the analysed companies and the role played by academic people, we lead an in-depth interview with the CEO of I3P.

These specific research features and the related hypothesis are separately presented in the following paragraphs: academic involvement analysis and performance analysis.

Academic involvement analysis

We carried out an interview with the I3P CEO for addressing the following topics for each of the graduated company:

- Presence of academic entrepreneurs
- Type of involvement of academic people

It's important to mention that, for presence of "academic entrepreneurship", we mean the presence as shareholders and/or directors (in the science-based companies) of people with a role in an academic institution (i.e. full, associate and assistant professors). So we excluded all other types of academic link and/or collaboration (i.e. lecturers, instructors, scholarship holders, etc.). Once the academic link was verified we focused on the type of involvement of academic people; in other words we figured out for each company when the academic was only a shareholder, only a director or both a shareholder and a director.

We used a dummy variable to take into account these different levels of entrepreneurial involvement. A score of 0 is given to companies that have no academic entrepreneurs; a score of 1 is given to companies with the presence of at least one academic. Then another dummy variable is used to test the grade of academic's involvement; a score of 0 is assigned to companies with academics only involved as shareholders and a score of 1 is assigned when the academics act both as shareholders and as directors.

We omitted the score assignment for academics who act only as directors because none of the companies analyzed presented this case.

Hence, the resulting values were used to validate the following hypothesis:

- **H1:** companies with academic entrepreneurship have better survival skills than other graduated companies;
- **H2:** higher grade of involvement of academic entrepreneurs can lead to better financial performance.

Performance analysis

The objective of this part of the work is to assess the performance of graduated companies by focusing mainly on quantitative aspect (financial structure, profitability, turnover growth) and then taking into account the overall qualitative opinion arising from the I3P's CEO interview.

When entities are not listed in a stock market, financial and profitability ratios can be used as main tools to assess financial and economic performance (Chakravarthy, 1986). However, these measures may be biased because the sample is composed by entities operating in different industries with different industry-driven levels of fixed assets, variable/fixed cost ratios and competitiveness (Porter, 1980). To overcome these limits a comparison with specific industry ratio averages may be useful.

The ratios computed over the three years were:

- % intangibles rate: as weight of intangibles on total assets
- Leverage: as debts/equity ratio
- ROI: as operating profit divided by total assets
- ROE: as net profit or loss divided by total equity.

Although we carried out a comparison with the average industry ratios, this was not significant because of peculiarities of start-up companies (rapid levels of growth, technology development and finance absorption).

Therefore, in order to overcome the previous limits and to have a unique dependent variable to test on the economic/financial performance aspect, instead to develop a specific overall performance score, we used the Altman's Z score (Altman, 1968). While the Z values were essentially constructed to predict bankruptcy, it can also be a valuable index of the company's overall good performance.

In detail, we used the normal Z score model (Altman, 2002) that is:

$$Z = 1.2 (X1) + 1.4 (X2) + 3.3 (X3) + 0.6 (X4) + 1.0 (X5)$$

where: X1 = working capital/total assets, X2 = retained earnings/total assets, X3 = earnings before interest and taxes/total assets, X4 = equity book value/total assets, X5 = sales/total assets.

By measuring distance from bankruptcy, Z score could be taken as a variable for companies' economic and financial performance.

Incubated companies economic and financial performance may depend on the date of birth.

Due to these argumentation, while considering the amount of science-based companies in our sample (in 2007 more than 75% of the companies were outside the incubator), in the analysis we decided to take into account and study: the 2007's Z for companies younger than three years, the 2006's Z for three years old companies and 2005's Z for companies older than three years.

THE RESULTS

A total of no. 22 companies (42% of the total sample) have a link with Universities (mainly Turin Polytechnic) but only no. 16 (31%) have what we call "academic entrepreneurship". Financial data and information about the entrepreneurial involvement were available for all the 16 companies. None of the academics involved in the graduated companies acts only as a director, all academics involved are at least shareholders, while no. 9 of them act also as directors. The complete breakdown about the academic entrepreneurial presence is presented in the following table.

<i>Number of companies</i>	<i>Total</i>	<i>%</i>
<i>Graduated companies with available financial data</i>	49	100%
<i>Presence of Academic Entrepreneurship</i>	16	33%
<i>of which</i>		
<i>only as shareholder</i>	7	44%
<i>only as director</i>	-	-
<i>both shareholder and director</i>	9	56%
<i>Notes: number of companies.</i>		

Table 2 - Sample breakdown - Presence / involvement of academic entrepreneurship.

After the analysis of available financial data and computation of financial ratios, we studied how academic entrepreneurship influences the performance of these companies. The following table presents a synthesis of financial data and computed ratios crossed with data about academic entrepreneurship.

		<i>Academic Entrepreneurship</i>		<i>TOTAL</i>	
		<i>No</i>	<i>Yes</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>Annual Turnover</i>	Y2005	275.3	205.9	219.4	339.8
	Y2006	235.5	185.2	254.0	324.4
	Y2007	367.3	404.3	378.6	470.0
<i>Operating profit</i>	Y2005	3.2	-24.9	1.9	45.1
	Y2006	8.6	-12.1	-5.4	150.8
	Y2007	7.3	47.8	19.7	447.4
<i>Total assets</i>	Y2005	288.0	398.5	224.8	306.9
	Y2006	234.0	205.3	321.8	485.1
	Y2007	328.4	534.9	391.6	643.2
<i>Equity</i>	Y2005	65.4	68.2	53.5	136.9
	Y2006	67.7	23.6	66.3	124.7
	Y2007	58.2	146.9	85.4	176.4
<i>Notes: means computed on 49 companies - data in Euro/000</i>					

Table 3 - Financial data synthesis and academic entrepreneurship (descriptive statistics).

		<i>Academic Entrepreneurship</i>		<i>TOTAL</i>	
		<i>No</i>	<i>Yes</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>ROI</i>	Y2005	5.8%	1.3%	4.5%	19.0%
	Y2006	6.4%	-1.0%	4.1%	21.2%
	Y2007	10.3%	8.6%	9.8%	32.9%
<i>ROE</i>	Y2005	-4.6%	14.1%	1.1%	76.6%
	Y2006	-1.3%	-19.5%	-6.8%	69.6%
	Y2007	8.6%	-17.8%	0.5%	62.3%
<i>Leverage</i>	Y2005	3.9	2.5	3.4	4.1
	Y2006	4.5	2.1	3.7	5.9
	Y2007	4.2	3.5	4.0	4.0
<i>Notes: Means computed on 49 companies</i>					

Table 4 - Financial ratios and academic entrepreneurship (descriptive statistics).

As can be seen in the previous table, by focusing only on the financial data and the ratios' values it could appear that academic entrepreneurship leads to worse financial performance. However, high rates of standard deviation denote that data are "spread out" over a large range of values and this reduce, at this level of research, the reliability of making some conclusions.

In order to overcome these limitations, the Altman's Z score was computed over the three years data. As can be seen in the following table, the values of the score are quite different if in the companies are present academics.

<i>Z Score</i>	<i>Academic entrepreneurship</i>		<i>TOTAL</i>			
	<i>No</i>	<i>Yes</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Min</i>	<i>Max</i>
Y2005	1.41	1.50	2.16	1.53	-1.60	6.12
Y2006	1.69	1.11	2.15	1.47	-1.45	5.69
Y2007	2.06	1.54	2.58	1.96	-2.80	7.77
<i>Notes: Means computed on 49 companies</i>						

Table 5 – Z scores and academic entrepreneurship (descriptive statistics).

In order to make some valuable considerations it is important to set out some levels of performance discrimination, in particular we used the discrimination range stated by Altman's further works (Altman, 2002):

- “Safe” zone: $Z > 2.99$
- “Grey” zone: $1.8 < Z < 2.99$
- “Distress” zone: $Z < 1.80$.

We used these levels as ranges for high, medium and low financial performance.

Furthermore, as seen before an important role over financial data / ratios is played by the graduation date (Rothaermel and Thursby, 2005b). As it can also be seen from the previous table older is the financial data worse is the related Z Score. For these reasons we assigned, as main performance variables, the Z scores of different years in relation to different graduation date (see previous methodology chapter).

In these terms, a breakdown of the resulting levels of financial performance distribution is presented in the following table.

		<i>Academic Entrepreneurship</i>		<i>Total</i>
		<i>No</i>	<i>Yes</i>	
<i>Financial performance (Z score)</i>	<i>High</i>	7 (21%)	3 (20%)	10 (20%)
	<i>Medium</i>	8 (24%)	2 (13%)	10 (20%)
	<i>Low</i>	19 (56%)	11 (69%)	31 (63%)
<i>Total</i>		33 (100%)	16 (100%)	49 (100%)
<i>Notes: number of companies.</i>				

Table 6 – Distribution of financial performance scores and academic entrepreneurship.

From the previous table, it seems that the companies with academic entrepreneurship are performing worse than other companies, because the majority of them gain a low score. The significance of this statement has been stated here in after with more statistical computations.

Afterwards if we also take into account the different grade of academic entrepreneurship it's possible to say that companies with higher involvement grade of academics (both shareholders and directors) perform better than companies with less academics involvement (only as shareholders), as it can be seen in the following table.

		<i>Academic Entrepreneurs' Involvement</i>		<i>Total</i>
		<i>only as shareholder</i>	<i>as shareholder and director</i>	
<i>Financial performance (Z score)</i>	<i>High</i>	1 (25%)	3 (75%)	4 (100%)
	<i>Medium</i>	2 (40%)	3 (60%)	5 (100%)
	<i>Low</i>	4 (57%)	3 (43%)	7 (100%)
<i>Total</i>		7 (44%)	9 (56%)	16 (100%)
<i>Notes: number of companies.</i>				

Table 7 - Financial performance and involvement grade of academic entrepreneurs.

As said before, the Z score together with the turnover growth are our main dependent variable for measuring financial performance. This choice allows further statistical analysis in order to better point out previous findings. Descriptive statistics of main variables are reported below.

<i>Main variables - Descriptive Statistics</i>					
	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>1. Academic Entrepreneurship</i>	49	0	1	.31	.47
<i>2. Grade of Academic Entrepreneurship</i>	16	0	1	.56	.51
<i>3. Financial performance (Z score)</i>	49	-1.94	5.68	2.23	1.57

Table 8 – Main variables, descriptive statistics.

To deepen the possible relations between these variables we undertook a linear correlation analysis using Pearson's "r" coefficient with a two-tailed t-test of significance; the resulting Pearson's correlation coefficients are presented in the following table.

<i>Research's variables</i>	1	2	3
<i>1. Academic Entrepreneurship</i>	1		
<i>2. Grade of involvement of academic entrepreneurs</i>	<i>n/a</i>	1	
<i>3. Financial performance (Z Score)</i>	-.295*	.301*	1
Notes: * $p \leq 0.05$			
<i>n/a = coefficient not available because variable "1" is constant.</i>			

Table 9 – Statistical correlation between academic presence and financial performance.

Financial performance and the presence of academic entrepreneurship are a bit negative correlated; the significance is not so high ($p \leq 0.05$) but this means that the presence of academic people has a negative impact on economic and financial performance of an incubated company.

This may sound odd but it could be explained by observing that usually these companies are involved in science-based industries which require a high rate of resources and have to overcome difficulties to reach a positive cash flow in a short time. Usually, these resources are employed to develop new technologies and advanced knowledge, which can be accounted only in part as intangibles assets and quite often are recognized as research expenses (due to limitations related to accounting policies) leading to bad financial statements results.

On the other hand, if academics are more committed in management because, as in this case, they act as directors of the company, better financial performance could be achieved. This is validated by the positive correlation, with a level of significance ($p \leq 0.05$), between an higher involvement grade of academics and the financial performance stated by the Z Score.

CONCLUSIONS

This study adds some more argumentation to the considerable debate developed, in the recent years, about the outcomes of firm–university linkages in term of economical and financial performance. Some authors (George *et al.*, 2002) point out the difficulty of addressing the effect of university-business influence on these types of performance. These difficulties may be related to the unclearness of the measures used to evaluate academic influences. For example, revenues, is an accepted performance metric for more mature companies, but it can be not suitable for the incubator context (Rothaermel and Thursby, 2005a) where companies are just in the start up phase.

In our study we tried to use a wider measure of performance applied to all companies in an incubator context. As a matter of fact, the measure we took as main dependent variable, formerly the Altman's Z score, developed to assess the survival skills of a company, it is able to reflect both profitability and financial performance of the companies in our sample.

The analysis of our findings points out that there is a negative correlation between the dummy variable used for addressing the academic entrepreneurship presence and the variable used for evaluating companies' performance. This permits to fully invalidate our first hypothesis which claims: "Companies with academic entrepreneurship have better survival skills than other graduated companies"; hence, we can just state the contrary in term of financial performance: Companies with academic entrepreneurship have worse financial performance than other graduated companies.

This last statement might sound odd, but the negative correlation between the presence of academic entrepreneurs and companies' financial performance can be explained.

First of all, we have to consider the nature of the business and, after, the status of Italian academic people.

About the first explaining topic, the nature of business, companies with academic entrepreneurship operate in advanced technology sectors because of the large and specific knowledge availability in universities. Performances of these companies are subject to a high rate of uncertainty and become eventually more effective a lot of time after the starting phase; this results in a low economic and financial performance until the research expenses and resources involved finally give raise to some real innovation.

About the second explaining topic, the special status of academics and actually, Italians academics, we have to consider that these people are allowed to keep one foot in two shoes. In other words professors may continue their activity in academic institutions while they act companies' shareholders and/or directors.

It's quite common that scientists prefer to maintain university ties to share ongoing research results and gain access to the scientific knowledge pool, while, in the meantime, receive the

benefits of dividends payout (George *et al.*, 2002). Even a more recent research showed that university scientists take active steps to preserve their academic role identity even as they participate in technology transfer (Jain *et al.*, 2009).

Moreover, this particular status may explain the low risk awareness of academic people despite the high uncertainty of the business of incubated companies (Renault, 2006). Even the lack of experience in general management was pointed out in past research (Wright *et al.*, 2007) and could be another cause of low economic/financial performances. It can explain the lack of time in managerial activities requested by the business and the resulting slow performance of companies (Vohora *et al.*, 2004).

In our opinion this can also be related to the different commitments academic people are charged of, and could explain the positive relation found between the grade of involvement of academics (only as shareholders or as both shareholders/directors) and the related financial performances and the validation of our second hypothesis: higher grade of involvement of academic entrepreneurs can lead to better financial performance.

It is true that more the academics are committed into the business of a company (i.e. not just as a common shareholder but also as a director), more they are interested in the company goals achievement, decision making, and have influence on related financial performance.

Moreover, this last finding shall address the attention of public institutions and in particular Universities while stating and issuing their policies for external commitments involving their employees (i.e. to temporarily stop lectures or researches when managerial commitments arise). It's quite interesting to note that the Turin Polytechnic, the related University of the I3P incubator has started a review process of the policies about academics committed in external companies.

	<i>Hypotheses</i>	<i>Validation</i>		
		<i>No</i>	<i>Yes</i>	
<i>H1</i>	<i>Companies with academic entrepreneurship have better survival skills than other graduated companies.</i>	X		<i>(negative correlation)</i>
<i>H2</i>	<i>Higher grade of involvement of academic entrepreneurs can lead to better financial performance.</i>		X	<i>(positive correlation)</i>

Table 10 – Validation of hypotheses.

About the implications of this research we can say that, given the crucial value of innovation for survival in the advanced technology industry, these results suggest that academic people may have also a valuable role in entrepreneurship. Potential benefits of academic entrepreneurship could improve companies' performance only if academic people are not only used as "knowledge providers" but if they are really involved into the company management. It could also be useful to enhance the commitment of academic entrepreneurs in science-based companies permitting them to temporarily reduce their institutional commitments.

LIMITATIONS AND FURTHER RESEARCH NEEDS

Some limitations of this research can be pointed out. First of all, the most recent available financial data for companies graduated in 2008 were those related to 2007, 2006, 2005. Hence the analysis was carried out to assess the performance of all the companies in those years without taking into account year 2008; usually financial statements relating one year are available for consultation after June/July of the next year.

Some of the graduated companies (25%), during 2007, were still in the incubator and now are just leaving their start-up phase. Further studies should also address the generalization of our findings. The studied sample is all from I3P, an incubator focused on engineering sciences. Future research could extend the analysis to data on incubated companies across different technology incubators.

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GOVERNANCE AND FINANCIAL PERFORMANCES: EVIDENCE FROM NTBFs (NEW-TECHNOLOGY BASED FIRMS) GOVERNED BY ACADEMIC PEOPLE.

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Purpose - The aim of this paper is to present the results of a study examining the governance of academic people in new technology based firms grown in university incubators. We aim to verify if the presence of academic people improves survival skills and economic and financial performances of NTBFs when these leave the incubator. Moreover, we aim to verify if different roles in the Academy can bring to different levels of financial performance.

Design/methodology/approach - The research has been carried out on a sample of 49 new technology firms based, mainly in Northern Italy, and graduated from the Turin Polytechnic's Incubator, called I3P. Data about the presence of academic people have been obtained interviewing I3P CEO while firms' survival skills and financial performance have been assessed by calculating economic and financial indexes (i.e. Altman Z score, ROI, ROE). Statistical correlation has been analysed using SPSS.

Findings - The statistical analysis shows that there is a negative correlation between the variable used for addressing academic governance and that used for evaluating companies' performance. Moreover, it seems that higher is the role of academic people in the Academy and lower is the financial performance of the related NTBF.

Originality/value - While there is a broad attention on incubated NTBFs, there are only few researches regarding NTBFs when these leave the incubator. We focused our attention on the relationship between the governance of academic people, their role in the Academy and the financial performance of NTBFs.

Paper type Research paper

Keywords Academic governance, financial performance, university incubator, new technology.

INTRODUCTION

The creation of laboratories and research centres and the establishment of incubators and scientific and technological parks for start-up firms are ways in which Universities give their contribute to the growth of the economy. Such activities are related to an effective technology transfer and lead to the realisation and commercialization of new ideas arising from science advances. Usually incubators and scientific / technological parks offer different advantages to start-up firms (i.e. a site, a laboratory for scientific tests, secretary services, logistic services, etc...) and, definitely, the right environment for the creation and the development of business ideas.

Usually start-up companies pass the first period of their life in the incubator and then leave. Some of these companies continue their growth even out of the incubator but some other aren't able to stay in the market. Moreover, some of these companies, once left the incubator, obtain satisfying economic performances while some others earn only little profits. A different governance could be one of the reasons of the different performances of new technology based firms, hereafter NTBFs.

BACKGROUND TO THE RESEARCH

The role played by Universities in relation to entrepreneurial development has been investigated by different points of view. A research about 45 incubators (Allen, 1985) documented the various services offered and the role played by Universities in sustaining and fostering the growth of young entrepreneurial firms.

Others (Bonaccorsi and Piccaluga, 1994) developed a theoretical framework and a taxonomy to study university-industry relations. Other researches assessed the effects of business-university alliances on innovative output and financial performance (George *et al.*, 2002) and pointed out the importance of university link and knowledge flows on the overall firm performance (Rothaermel and Thursby, 2005a).

This explain the widespread literature that exists about incubators and related companies (Wright, 2003). The function of university technology business incubators has been previously studied by providing conceptual frameworks for assessing and managing them (Mian, 1997) and by studying the relations between incubators and science parks too. Others argued the importance of close links among different knowledge provider entities (Aernoudt, 2004), (Phan *et al.*, 2005).

Also Italian incubators has been studied, in particular by assessing their effectiveness in term of developing technology-based firms (NTBFs), by showing that on-incubator firms perform better than off-incubator firms (Colombo and Delmastro, 2002) and that the firm propensity to a broad use of incubator's resources and support increases with the progression of its lifecycle (McAdam and McAdam, 2008).

Another branch of studies focused on academic spin-off companies (Lockett *et al.*, 2005), (Mustar *et al.*, 2006), for example by studying the national trends (Chiesa and Piccaluga, 2000) or exploring the typologies of companies originated in universities (Druilhe and Garnsey, 2004). By focusing on the venture capital activity in relation to the lifecycle of target firms, some best practices were developed for universities' incubator management (Wright *et al.*, 2006). Finally others pointed out the role played by intellectual transfers (Cesaroni and Piccaluga, 2005) and studied knowledge management in an organizational perspective (Becker and Gassmann, 2006).

In our opinion, there is a lack of research about the governance of new technology based firms; in particular about the characteristics of the people involved. Hence, we investigate the role played by academic personnel in firm's governance, and, specifically, in the governance of NTBFs, born and grown in university incubators (UIs). The aim is to analyse start-up firms born in incubators and to verify if the presence of academic personnel can strengthen or weaken the economic and financial performances of those firms. The arising effect could be positive or negative. A past research showed that the entrepreneurial attitude of academics is related to effective technology transfer and can enhance the commercialization of research outputs (Renault, 2006). Besides, a positive effect could be related to a close link to research gains, to the availability of advanced technology and to continuous knowledge flows. However the presence of academic people could have a negative correlation with firms' economic and financial performances. The reason could be related to a lack of management experience of academics or to a lack of time caused by their academic commitments. Even the conflicts between the

university and business cultures could sometimes depress the performance of NTBFs (Cyert and Goodman, 1997).

RESEARCH METHODOLOGY

The research has been carried out empirically on a sample of incubated new-technology based firms. The sample is based, mainly in Northern Italy, and it derives from the Turin Polytechnic's Incubator, called I3P.

This incubator is a non-profit joint-stock consortium built by Turin Polytechnic and other public entities; in 2004, it gained the Award for the World Best Science-based incubator.

I3P was established in 1999 to promote and support the creation of hi-tech enterprises, grouping the innovative potential developed in research institutions in Piedmont area.

Usually, the maximum period policy a company can stay in I3P is three years and then leaves. Actually, there are 61 NTBFs graduated by I3P.

These firms belong to different industries, have different ownership structures and have to be considered small enterprises; their maximum annual turnover is not more than euro 1.5-2 millions and the average number of employees is between 2-10.

Due to the fact that in Italy only limited companies provide public financial statements, we excluded no. 8 firms, so the sample is composed by no. 53 firms. Financial data were directly found by requesting the related financial statements (for years 2005, 2006, 2007) from the Italian Chamber of Commerce; no. 49 financial statements were available and were analysed (92% of the total limited companies).

In the following table, there is a breakdown of these graduated NTBFs.

	<i>Partnership firms</i>	<i>Limited companies</i>	TOTAL	%
<i>Aerospace</i>	-	1	1	1.7%
<i>Biotech</i>	1	1	2	1.7%
<i>Building & Architecture</i>	-	1	1	1.7%
<i>Chemicals & Material</i>	-	1	1	1.7%
<i>Electronics & Automation</i>	3	12	15	23.3%
<i>Energy</i>	-	4	4	6.7%
<i>Environment & Territory</i>	-	3	3	6.7%
<i>Information Technology</i>	3	27	30	50%
<i>Mechanics</i>	1	3	4	6.7%
TOTAL SAMPLE	8	53	61	100%
<i>Available financial statements</i>	-	49		

Table 11: Industry and ownership structure of the graduated NTBFs.

Afterwards, in order to analyse the governance of NTBFs and the role of academic people, we lead an in-depth interview with the CEO of I3P.

These specific research features and the related hypothesis are separately presented in the following paragraphs: academic governance analysis and performance analysis.

Academic governance analysis.

In the interview with the I3P CEO we addressed the following topics for each graduated NTBF:

- Presence of academic governance;
- Type of academic personnel in the governance.

For “academic governance” , we mean the presence of people with a role in the Academy (i.e. full, associate and assistant professors, lecturers, technicians of Universities or Polytechnics) in the board of NTBFs. Hence, we excluded all other types of academic link and/or collaboration (i.e. instructors, scholarship holders, doctoral students, etc.). We used a dummy variable to take into account the presence of this academic governance. A score of 1 is given if academics have a role in the boards of NTBFs and a score of 0 is given to all other cases.

About the type of academic people involved in the governance, we used the data from the interview together with the data arising from the directors’ lists attached to financial statements and the personnel’s lists of Piedmont’s academic institutions available on their websites.

This information was available for all the companies. If applicable, a score of 1 was assigned when a full or associate professor presence occurs, a score of 0 is assigned when an assistant professor, a lecturer or a technician presence occurs and no score is assigned to all other cases.

In our opinion, academics with a higher role in their Institution may have less time to spend in the firm's managerial activities; this can result in having less influence in goals achievement and in overall low financial performances.

Hence, by linking these data with the financials we developed the following hypotheses:

- H1: governance by academic people influences financial performance.
- H2: higher is the role in the Academy, lower is the financial performance of the related NTBF.

The ways we analysed financial performance are discussed in the following sub-paragraph.

Financial Performance analysis.

We assessed the financial performance of NTBFs by focusing on quantitative measures like financial structure, leverage and profitability.

When firms are not listed in a stock market, financial and profitability ratios can be used as main tools of analysis to assess financial performance (Chakravarthy, 1986). However, these measures may be biased because the sample is composed by firms operating in different industries with different industry-driven levels of fixed assets, variable/fixed cost ratios and competitiveness (Porter, 1980). To overcome these limitations a comparison with specific industry ratio averages can be used.

The ratios computed over the three years were:

- Leverage: as debts/equity ratio
- ROI: as operating profit divided by total assets
- ROE: as net profit or loss divided by total equity.

The comparison with the average industry ratios was not significant because of peculiarities of NTBFs (rapid levels of growth, technology development and finance absorption) and it was not used in the analysis of data.

Therefore, in order to overcome the previous limits and to have a unique dependent variable to test on the economic/financial performance aspect, instead to develop a specific overall performance score, we used the Altman's Z score (Altman, 1968). While the Z values were essentially constructed to predict bankruptcy, it can also be a valuable index of the firm's overall good performance.

In detail, we used the adaptation of the score developed for privately held firms (Altman, 2002) that is:

$$Z = 0.717(X1) + 0.847(X2) + 3.107(X3) + 0.420(X4) + 0.998(X5)$$

where: X1 = working capital/total assets, X2 = retained earnings/total assets, X3 = earnings before interest and taxes/total assets, X4 = equity book value/total assets, X5 = sales/total assets

Although Z score measures the probability of a firm's bankruptcy, it could be taken as a variable for assessing firms' financial performance.

Another limitation about this financial analysis could be the fact that the NTBFs' financial performance may depend on the different dates of birth.

Due to these argumentation, while considering the amount of start-up firms in our sample (in 2007 more than 75% of the companies were outside the incubator), in this research we decided to take into account and study: the 2007' s Z score for companies younger than three years, the 2006' s Z score for three years old companies and 2005' s Z score for companies older than three years.

THE RESULTS

The 42% of the total sample (no.22 NTBFs) has a link with the Academy (mainly Turin Polytechnic) but only the 30% (no. 16 NTBFs) has what we intend as "academic governance" . NTBFs which involves academics with a higher role in their Institution are no. 13 (81% of the total academics involved in NTBFs). The complete breakdown of these findings is presented in the following table.

<i>Academic role</i>	<i>Academic Governance</i>		<i>TOTAL (%)</i>
	<i>No</i>	<i>Yes</i>	
<i>Not applicable</i>	31	-	31 (58%)
<i>Other academic roles</i>	6	-	6 (11%)
<i>Assistant professor/Lecturer/Technician</i>		3	3 (6%)
<i>Associate/Full professor</i>		13	13 (25%)
<i>Total (%)</i>	37 (70%)	16 (30%)	53 (100%)
<i>Notes: number of NTBFs</i>			

Table 12 - Presence of academic governance and role in the Academy.

Although financial data were available for only no. 49 NTBFs of our sample, these data cover all the no. 16 firms with academic governance.

The following tables present a synthesis of financial data and computed financial ratios crossed with the academic governance presence.

		Academic Governance		TOTAL	
		No	Yes	Mean	Std. Deviation
Annual Turnover	Y2005	220.3	217.4	219.4	339.8
	Y2006	262.9	233.9	254.0	324.4
	Y2007	349.5	444.5	378.6	470.1
Operating profit	Y2005	6.9	-8.4	2.0	45.2
	Y2006	0.4	-18.5	-5.4	150.8
	Y2007	4.8	53.5	19.7	447.4
Total assets	Y2005	216.4	242.8	224.8	306.9
	Y2006	270.1	438.9	321.8	485.1
	Y2007	315.0	565.3	391.6	643.2
Equity	Y2005	64.9	29.4	53.5	137.0
	Y2006	60.4	79.6	66.3	124.7
	Y2007	56.9	149.9	85.3	176.4
<i>Notes: means computed on 49 NTBFs - data in Euro/000</i>					

Table 13 - Financial data synthesis and academic governance (descriptive statistics).

		Academic Governance		TOTAL	
		No	Yes	Mean	Std. Deviation
ROI (%)	Y2005	6.4%	0.0%	4.5%	19.0%
	Y2006	6.0%	-0.4%	4.1%	21.2%
	Y2007	10.0%	9.1%	9.8%	32.9%
ROE (%)	Y2005	-6.3%	18.0%	1.1%	76.6%
	Y2006	2.3%	-27.6%	-6.8%	69.9%
	Y2007	6.4%	-12.7%	0.5%	62.3%
Leverage	Y2005	4.1	2.0	3.4	4.1
	Y2006	3.5	4.4	3.7	5.9
	Y2007	4.1	3.9	4.0	4.0
<i>Notes: Means computed on 49 companies.</i>					

Table 14 - Financial ratios and academic governance (descriptive statistics).

As can be seen in the previous tables, by focusing only on financial data and ratios' values it could appear that NTBFs with academic governance are lower performing than other firms.

However, high rates of standard deviation mean data are "spread out" over a large range of values and this reduce, at this level, the reliability of testing our first hypothesis. Hence we carried out the correlation analysis presented hereafter.

About the influences of the academic role on financial performance, by focusing only on financial ratios we found, at this first level, that NTBFs which involve an academic with a higher role in the Academy are lower performing than other academic NTBFs. Again, the low number of academic NTBFs which involve people with a lower academic role may affect the reliability of this finding.

The resulting ratios about these academic NTBFs are presented in the following table:

		Academic Role		TOTAL	
		Assistant professor/ Lecturer/ Technician	Associate/ Full professor	Mean	Std. Deviation
ROI (%)	Y2005	7.8%	-1.9%	0.0%	24.9%
	Y2006	8.1%	-2.5%	-0.4%	23.9%
	Y2007	8.1%	9.4%	9.1%	35.6%
ROE (%)	Y2005	27.8%	15.6%	18.0%	52.1%
	Y2006	29.7%	-41.9%	-27.6%	79.3%
	Y2007	23.6%	-21.7%	-12.7%	72.6%
Leverage	Y2005	3.3	1.7	2.0	3.3
	Y2006	5.3	4.1	4.4	2.9
	Y2007	5.6	3.5	3.9	2.2
<i>Notes: Means computed on 16 companies.</i>					

Table 15 - Financial ratios and academic role of NTBFs with academic governance (descriptive statistics).

In order to overcome the previous limitations and to have a more comprehensive financial performance variable, the Altman' s Z score was computed over the three years data. As can be seen in the following tables, the values of the score are quite different between academic and non academic NTBFs and between the higher and the lower roles of the academic people involved.

Z Score	Academic governance		TOTAL			
	No	Yes	Mean	Std. Deviation	Min	Max
Y2005	1.87	1.67	1.81	1.30	-1.45	4.51
Y2006	1.94	1.49	1.81	1.32	-1.20	4.80
Y2007	2.27	1.99	2.18	1.73	-2.40	7.13
<i>Notes: Means computed on 16 NTBFs.</i>						

Table 16 – Z scores and academic governance presence in NTBFs (descriptive statistics).

Z Score	Academic role		TOTAL			
	Assistant professor/ Lecturer/ Technician	Associate/ Full professor	Mean	Std. Deviation	Min	Max
Y2005	1.96	1.62	1.67	1.34	-0.62	4.37
Y2006	1.85	1.41	1.49	1.45	-0.96	3.73
Y2007	2.22	1.93	1.99	1.67	-1.74	5.09
<i>Notes: means computed on 16 NTBFs.</i>						

Table 17 – Z scores and academic role of NTBFs with academic governance (descriptive statistics).

In order to make some valuable considerations it is important to set out some levels of performance discrimination, in particular we used the discrimination range stated by Altman's further works (Altman, 2002):

- "Safe" zone: $Z > 2.99$
- "Grey" zone: $1.8 < Z < 2.99$
- "Distress" zone: $Z < 1.80$.

These levels were used as ranges for high, medium and low financial performance.

Furthermore, as discussed before, an important role over financial data / ratios is played by the graduation date (Rothaermel and Thursby, 2005b); for this reason we assigned, as main performance variables, the Z scores of different years in relation to different graduation date.

In these terms, a breakdown of the resulting levels of financial performance distribution is presented in the following table.

		Academic Governance		
		No	Yes	Total
Financial performance (Z score)	High	11 (73%)	4 (27%)	15 (100%)
	Medium	10 (67%)	5 (33%)	15 (100%)
	Low	13 (65%)	7 (35%)	20 (100%)
Total		34 (68%)	16 (32%)	50 (100%)
<i>Notes: number of NTBFs.</i>				

Table 18 – Distribution of financial performance scores and academic governance of NTBFs.

		Academic Role		
		Assistant professor/ Lecturer/ Technician	Associate/ Full professor	Total
Financial performance (Z score)	High	1 (25%)	3 (75%)	4 (100%)
	Medium	1 (20%)	4 (80%)	5 (100%)
	Low	1 (14%)	6 (86%)	7 (100%)
Total		3 (19%)	13 (81%)	16 (100%)
<i>Notes: number of NTBFs.</i>				

Table 19 – Distribution of financial performance scores and academic role of NTBFs with academic governance.

Also from the Z score analysis, it seems that NTBFs with academic governance are lower performing than other firms and this performance is lower when the role in the Academy of people involved is higher.

In order to improve the reliability of these findings we carried out a correlation analysis and we took the Z score as our main financial performance dependent variable. This choice allows further statistical analysis in order to point out some other interesting relations. Descriptive statistics of the main variables used are reported below.

<i>Main variables - Descriptive Statistics</i>					
	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>1. Academic governance</i>	53	0	1	.31	.47
<i>2. Academic role</i>	16	0	1	.81	-.40
<i>3. Financial performance (Z score)</i>	49	-2.40	7.13	2.17	1.72

Table 20 – Main variables study, descriptive statistics.

We used a linear correlation analysis using Pearson's r coefficient with a two-tailed t-test of significance; the resulting Pearson's correlation coefficients are presented in the following table.

<i>Study's Variables</i>	<i>Pearson's correlation coefficients</i>		
	<i>1</i>	<i>2</i>	<i>3</i>
<i>1. Academic governance</i>	1		
<i>2. Academic role</i>	<i>n/a</i>	1	
<i>3. Financial performance (Z Score)</i>	-0.289 *	-0.401*	1
<i>Notes: n/a = coefficient not available because variable "1" is constant.</i>			
* $p \leq 0.05$			

Table 21 – Analysis of correlation.

Although with not so much significance ($p \leq 0.05$), financial performance and academic governance are quite negative correlated; this means that the presence of academic people in the NTBFs' boards has a negative impact on economic and financial performance.

This may sound odd but it could be explained by observing that usually, NTBFs linked with Universities are those more involved in more risky industries which require a high rate of resources and need to overcome difficulties to reach a positive cash flow in a short time.

Usually, these resources are employed to develop new technologies and advanced knowledge, which can be accounted only in part as intangibles assets and quite often are recognized as research expenses (due to limitations related to accounting policies) leading to bad financial statements results.

On the other hand, the negative correlation between the role of academics – with a bit of significance ($p \leq 0.05$) – means that higher is the role in the Academy, worse is the performance of the NTBF. This finding could be explained because of the amount of commitments/activities that associate and full professor may have compared to lecturers or assistant professor, this lead to less time spent for managing the NTBF.

CONCLUSIONS

Our research adds more argumentation to the considerable debate developed, in the recent years, about the outcomes of firm–university linkages in term of economical and financial performance of NTBFs.

Previous studies (George *et al.*, 2002) pointed out the difficulty of addressing the effect of university-business link on these types of performance. These difficulties may be related to the unclearness of the measures and values used to evaluate academic influences. For example, revenues, are an accepted performance metric for more mature companies, but it can be not suitable for the incubator context (Rothaermel and Thursby, 2005a) where firms are just in the start up phase.

In this study we tried to use a wider measure of performance applied to all companies in an incubator context. As a matter of fact, the measure we took as main dependent variable, formerly the Altman's Z score, developed to assess the survival skills of a firm but able to reflect both profitability and financial performance of the companies in our sample.

The analysis of our findings points out that there is a negative correlation between the dummy variable used for addressing the academic governance presence and the variable used for evaluating the NTBFs' financial performance. This allows to validate our first hypothesis and saying that governance by academic people influences financial performance in a negative way.

This last sentence might sound odd, but the negative relation between the presence of academics as NTBFs directors and the financial performance can be explained.

On the one hand, an important role is played by the nature of business of NTBFs. Firms with an academic governance are more linked to advanced technologies and risky industries because of the large and specific knowledge availability in the Academy. Performances of these firms are subject to a high rate of uncertainty and become eventually more effective a lot of time after the starting phase; this results in a low financial performance until the researches and the investments finally give raise to some effective innovation and positive cash flow.

On the other hand, also the special status of academics and, actually, Italians academics, could explain this negative relation. Academic people are usually allowed to keep one foot in two shoes. In other words professors may continue their activity in the Academy while they act as companies' shareholders and/or directors.

It's quite common that scientists prefer to maintain university ties to share ongoing research results and gain access to the scientific knowledge pool, while, in the meantime, receive the benefits of dividends payout (George *et al.*, 2002).

Furthermore, this particular status may explain the low risk awareness of academic people despite the high uncertainty of the business of incubated NTBFs (Renault 2006). Even the lack of experience in general management (Wright *et al.*, 2007) and the lack of managerial skills (Vohora *et al.*, 2004) were pointed out in past research and could be other reasons of low economic/financial performances.

In our opinion this can also be related to the different commitments academic people are charged of, and could explain the negative relation found between the role played by academics

in their institution and the related financial performances of NTBFs. This validate our second hypothesis: higher is the role in the academy, lower is the financial performance of the related NTBF.

People with a lower role in the Academy like assistant professors, lectures or technicians usually have lower wages than full or associate professors; for these reasons those people might be more concerned to the achievement of positive returns related to the firms they are committed in.

	<i>Hypotheses</i>	<i>Validation</i>		
		<i>No</i>	<i>Yes</i>	
<i>H1</i>	<i>Governance by academic people influences financial performance.</i>		X	<i>(quite negative)</i>
<i>H2</i>	<i>Higher is the role in the Academy, lower is the financial performance of the related NTBF.</i>	X		

Table 22 – Validation of hypotheses.

This research may have some interesting implications. We can say that, given the crucial value of innovation for the survival of New Technology Based Firms, these preliminary results suggest that academic people may have an important role in the government of these companies.

Potential benefits of academic governance could improve companies' performance only if academic people is not only used as "knowledge providers" but really committed in the business.

This means that academics have to forget about their normal commitment in order to have more time to spend in firms' managerial activities.

Moreover, this shall address the attention of Public Institutions and in particular Universities while stating and issuing their policies for external commitments involving their workers (i.e. to temporarily stop lectures or researches when managerial commitments arise).

LIMITATIONS AND FURTHER RESEARCH NEEDS

This research could have some limitations. First of all, the most recent available financial data for companies graduated in 2008 were those related to 2007, 2006, 2005. Hence the analysis was carried out to assess the performance of all the companies in those years without taking into account year 2008; usually financial statements relating one year are available for consultation after June/July of the next year.

Some of the graduated companies (25%), during 2007, were still in the incubator and are just leaving their start-up phase. Another limitation is that, in our sample, there is a few number of academic NTBFs with academics of lower roles.

Further studies should also address the generalizability of the findings. The studied sample is all from I3P, an incubator focused on engineering sciences. Future research could extend the analysis to data on incubated companies across different technology incubators.

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PROJECT SUCCESS OR FAILURE CAN NOT BE DETERMINED BY MONITORING THE PROJECT LEVEL ARTEFACTS

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A qualitative study, comparing and describing novel approach to evaluate a software project's successful or failed ending. The paper asserts that projects success or failure can not be determined using a standard approach (i.e. comparing results to a pre-determined set of goals, timeframe and budget) due to the continuous stream of accepted changes from external and internal origins. Without a quantitative, stable frame-of-reference, standard metrics are rendered meaningless.

Following the higher work-unit granularity typical to modern software development methodologies, granularity that helps accommodate change, a change in the granularity of the monitoring methods is shown to support proper ongoing and final evaluation the project status. The new method changes the monitoring artefact from the project level to the level of a single contributor to the project, at a weekly time resolution. Personal velocity (formally defined in chapter 3 below) data is publicly evaluated on a weekly basis, with changes accommodated into work-plans and corrective action immediately taken. The method focuses on accountability enhancement, as a major factor in achieving results attributes (time, budget, and planned scope). Using simple statistical means, individual data can be integrated into true departmental and project level metrics, providing management with essential quantitative tools.

This paper describes a case study executed with software development groups in an Israeli high-tech company. The novel metric is presented with real-life data, augmented by an employee satisfaction survey.

This paper is part of the author's PhD thesis.

INTRODUCTION

Measuring software project success is traditionally done by comparing project initial specifications with the actual functionality, versus allocated time and budget. However, this naive metric rarely sustains the realities of continuously-changing exogenous factors, such as market realities, customers' needs and understandings, competitive pressures; and internal factors, from technical barriers to personnel issues to company politics. How can a project be measured for success, with an ever-shifting frame of reference?

Measuring project success has many practical facets, not the least of them managing, motivating and rewarding software development professionals, the main contributors to software-based projects. While professionals may contribute their best and more, a project may fail due to entirely-exogenous factor. For example a new competitor's lucrative offering may render their efforts useless (as happened to smartphone manufacturers worldwide when the first iPhone was introduced by Apple). A more common example is the challenge of preserving professionals' motivation and accountability for project's outcome under the barrage of continuous content, timing and focus changes. Measuring the project total tasks achievements,

while ignoring the effect of business-required changes which result in project delays, creates an environment where the software professionals tend to reject accountability for the project.

Measuring project success thus must support both the needs of management, from executives to project managers, and the needs of software professionals. For both groups, the metrics must be meaningful, providing true insights on performance, and enhance effective operations, motivation and accountability.

As described in the following literature review, the software industry responds to the need to handle continuous change by various project-management methodologies, with a common use of smaller work-units than typical to classic waterfall; the higher resolution of work units enables more orderly handling of change, especially when timed with the end of each work-unit.

In this paper a project measurement methodology is described, that exploits the higher resolution work-units to achieve similarly high-resolution metrics. The measurement methodology successfully separates internal software development from the influence of change, while closely monitoring individual contributors' performance, in both weekly and entire-project scale. Managers can follow performance and change assimilation, and also relate to entire project and development body performance metrics. The methodology is described by means of a case-study, presenting data of a 30-strong R&D group in an Israeli high-tech company for 3 years.

The measurement methodology is part of a modern, small work-unit software development process, with special means to enhance software professionals' accountability to the projects' ever-changing goals (see details below). Both exogenous and internal changes are accommodated on a weekly basis, in all-hands meetings, where plans, commitments, achievements, delays and challenges are all reviewed publicly, thus enhancing accountability and peer-support. Data is presented relating to employee motivation and accountability, via a comparative employee-satisfaction survey.

One system suggested in this paper to evaluate the real status of the project is with examining the developers work *velocity* (formally defined in chapter 3 below), by examining their ability to keep their work commitments in an ongoing stream of weekly commitments. The advantage of such artefact is a new ability for the Project Manager and the company's management to differ between exogenous changes (e.g., business constraints, where the company is willing to pay with schedule delays and higher cost by accepting those changes), from the delays done in the developers working environment (e.g., like quality and other design problems found in the project).

This can help answer the question: why is that project late? It can verify which part of the delay should be accepted because, for example, business needs, and which part of it is attributable to, for example, internal project errors.

The individual-contributor-level, weekly velocity data is used to monitor each contributor performance, enabling immediate corrective action by managers when deterioration is detected. With the entire-project view, local delays can spread throughout the group, supporting corrective action. In a short few-weeks time, a manager can test the effectiveness of corrective

actions, and act accordingly. This action-oriented approach helps to steer a project in a quickly-changing environment.

As detailed velocity data can be *integrated*, for example by statistical means (averaging over time and people, inspecting standard deviations etc.), the measurement can be applied to whole R&D groups, and to the entire project, thus giving useful, action-oriented feedback to all levels of management. Further study is required in order to map quantitative dependencies between velocity data and business results, like budgetary efficiency, fitness to market ever-changing needs, or technological agility.

LITERATURE REVIEW

Continuous changes in Project management

“Nothing endures but change”, Heraclitus (c. 535–c. 475 BCE)

Tom Demarco, the writer of the well known book: *Controlling Software Projects: Management, Measurement, and Estimation* (Prentice Hall/Yourdon Press, 1982), has lately discovered that his method does not provide the anticipated results in projects, in his new paper (*Software Engineering: An Idea Whose Time Has Come and Gone?*, 2009) Demarco says that “Strict control is something that matters a lot on relatively useless projects and much less on useful projects. It suggests that the more you focus on control, the more likely you’re working on a project that’s striving to deliver something of relatively minor value”. Demarco raises the question “why on earth are we doing so many projects that deliver such marginal value?” which reflects the much observed fact, that projects tend to fail its objectives regardless the way it was managed and controlled.

Continuous changes and classic project management methods

The software development process is usually viewed as a sequence of activities. Managing these tasks required specific process models like the waterfall model or the spiral model have been proposed for tracking the development progress in a project. Tausworthe’s Work Breakdown Structure approach (Tausworthe 1980) is used for describing atom elements of the development process that can be used as a sequence of activities in the project.

Jeffries, Anderson and Hendrickson (2001) agree that customers do not normally understand the software requirements at the beginning of the development process. The customer will make changes in the original requirements and in the new requirements as his understanding of the project details fold out. When encountering change, projects using the waterfall process may call upon a “Change Control” procedure: at the time the customer requests a change in the requirements, a committee or a project manager decides whether or not to approve the change (McConnell, 1997). Certain project managers plan for some contingency in order to avoid missing deadlines (Goldratt, 1997), while some project managers oblige their customers to swap requirements from scope. Significant administrative overhead is evident in managing a customer's request for a change. De-scoping, or requirement triage, is applied in order to reduce the product scope and meet the schedule (Davis, 2003).

Continuous changes and the new project management methods

The quick approach to software development is an expansion of the iterative approach. Methodologies belonging to this group concentrate on suitable work environments, osmotic information flow between team members, and low formal overhead expense. The fundamentals of this group were determined by many leading researchers of software and its application, and published in the agile software development manifest. Some examples of agile methodologies are Adaptive Software Development (ASD), Extreme Programming (XP), Feature Driven Development (FDD), Dynamic System Development Method (DSDM), Crystal Methodologies, and Scrum.

These methodologies developed as an alternative to classic engineering methodologies (Fowler 2003). Their most important feature is adaptability to changes. Organizations that apply these methodologies can "harness or embrace change by being better than competitors at responding to changing conditions and by creating change that competitors can't respond to adequately" (Highsmith 2002, p.32) Agile methodologies present well-established concepts and practices: "No single idea that hasn't been around for 30 years, but taken as a whole they are meaningfully different". (Larman, 2003b).

Customer Involvement Levels – Agile processes require an excessively high level of customer involvement in product development. Projects remain open until the Closure phase. The deliverable may be altered in the Planning phase and in the Sprint phase, during which the project is open to the environment: competitive and financial pressures, as well as time and quality pressures.

The Motorola case study

In the Israeli PMI conference held in 2007, Shapira F., a Project manager at Motorola Israel gave a lecture about Introduction of Agile Management in Motorola Israel – a case study. In the lecture, Shapira said that Motorola is using the classic Water Fall methodology for SW developing projects. Motorola Israel has recently (2007) introduced the Agile methodology of SW project. A special project tracking procedure was developed in cooperation with the Quality department.

Shapira said that still, the project took much longer than expected, the client didn't get all his requirements and the project cost more than it was budgeted. The Motorola's Project Manager concluded that "The project success is not depended on the process but rather on the accountability of people involved in the project"

Defining the meaning of project success or failure

On the early days of the high-tech industry (1970-1980), managing a software development projects was considered risky and full with uncertainty pitfalls (Alter and Ginzberg, 1978), most of the projects in these times were off schedule and over their initial budget (Zmud, 1980). Much research was focused on risk management in software projects, identifying risk factors and developing methodologies to prevent these factors from resulting in software project failures.

However, despite the many advances in software development methodologies, software development projects failure rates are still high and may even have increased.

There are many authors claiming about the difficulty encountered in managing software projects. In 1980, Putnam (Putnam 80) claimed that cost overruns of two to three hundred percent were typical. DeMarco (DeMarco 82) stated that fifteen percent of software projects failed to deliver anything and that projects with cost overruns of less than thirty percent were considered successful. Other (Shein 96) reported that only sixteen percent of software projects were successful. Software cost overruns, schedule delays, and poor quality have been endemic in the software industry for more than 50 years (Jones C. 2008).

A Massachusetts-based (Standish Group, 1994) consulting company which is a leader in evaluating risk, cost, and ROI for information technology investments, publishes new findings every year (CHAOS report). This company studied 365 companies – and around 8,000 information system applications in development. In 2004, the latest statistics published were: 15 percent of the projects have been failed while 51 percent of the projects met the challenged criteria (see below).

	<i>Date</i>	<i>Success Rate</i>
<i>First CHAOS report</i>	<i>1994</i>	<i>16%</i>
<i>"Extreme CHAOS"</i>	<i>2001</i>	<i>28%</i>
<i>Most recent CHAOS</i>	<i>2003</i>	<i>31%</i>

Table 1: Software project success rates reported by Standish Group

The CHAOS report divides projects into three types of resolutions:

- Success – completed according to specifications, on time and on budget. 16.2% of the projects studied fall in this category.
- Challenged – Completed over cost, over time, or without the required specifications. 52.7% of the projects fall under this category.
- Failed – Abandoned or cancelled projects – 31% of the projects fell under this category.

According to Scott Berinato of CIO.com, three-quarters of the IT projects conceived in the past seven years have experienced failure, cost overruns, time overruns, or rollouts with fewer features than demanded (Berinato, 2001). The Forrester group conducted a study which states that one-third of the IT projects would be an average of three months late (Hoffman, 2003). America spends over \$275 billion each year on about 200,000 software development projects, many of which fail (Crawford, 2001).

Julia King reported in 2003 that companies that aren't among the top 25% of technology users, three out of 10 IT projects fail on average.

RESEARCH PROJECT

Project description and objectives

The project investigates the influence of a new, possibly accountability-enhancing method and tools on an R&D organization day by day operation. The group consists of about 30 R&D personnel, working in a multi projects environment (There are several projects done simultaneously). Data was collected for the last 30 months. The objective of the new method implementation was to improve the project goals in such development environment (schedule, budget, quality, and content). During this period there was no employee attrition, so the information gathered was not influenced by personal talent changes.

The 3 principles of the methodology

Quantification – One of the tools to isolate the developer personal contribution and work velocity to the project from all the other factors must create a new way to quantify the personal contribution factor; transforming the un-quantifiable perceived contribution factor into tangible set of data and information items using measurement tools.

Publicity – Sharing of the developer personal contribution-related metrics with the entire group of project stake-holders. This sharing reduces any potential bias factor and increases the accountability factor of the developer – The software developer engineer peers can review the developer's assessment: If they approve it, they are automatically committed to that assessment and its consequent schedule. This kind of commitment process creates cross-commitment environment, letting everybody feel as being in the same boat.

Ongoing Follow-up – a common project real-life attribute is the ongoing stream of changes over the project lifecycle. The measurement method used in the project should be always maintained, reflecting current status as time passes towards the actual delivery date. The project management should evaluate the work velocity continuously, for every developer and for the entire group and project.

Research methodology

A case study approach was used in this paper. Informal interviews were conducted with project managers as well as software developers and a product manager. These informal interviews were supplemented with information from the project. The case study was based on field experiments (done in the last 30 months), for empirical data collection, based on mid to large software projects within a software development based company. Data was collected from project managers, software developers, company executives and engineering staff. 5 main software projects were analyzed (projects were completed in the period of 2006-2009) and from database tools (Work Log DB, MS-Project files) and records (meetings summaries, requirements logs, survey, etc...).

The major purpose of this case study is to evaluate applying high-granularity metric, ongoing weekly-based developer velocity, as an assessment tool, for increasing the overall project quality on an R&D organization in day by day operations, in a multi projects environment.

The research implemented at the case study provides an opportunity to evaluate whether the method and various tools suggested could significantly improve the project success rates, and the implications for personal accountability.

Background:

This case study demonstrates using tools which can measure in a high resolution the stakeholders work. This is done on a personal level using a high granularity time artefact – weekly based. These tools enable us to manage the ongoing changes stream in a manner that can be perceived by the project management as an excellent tool to differ between changes with work external origin (such as new customer requirements) and the work internal changes (such changes done by wrong design). This analysis make the changes get checked and could be handled on weekly basis.

The publicity aspect of the developer accountability is getting higher as this accountability is periodically viewed by the whole development group. These tools can put a spotlight on every developer's work velocity and by that the project management can isolate the project external changes from the "delays" occurred due to the work process. As the developer work can be viewed publicly, the accountability level of each developer gets higher towards his personal potential. This creates a work optimization in the developer level.

The case study is based on data acquired in a high-tech company, producing software-based products for the automotive industry.

The novel tool-set:

Last week – Next week process

Ongoing weekly meetings are conducted by the project manager with ALL the developers. At these meetings are used to go through the work achieved, level of completion, problems encountered, any delays, and the duration of time needed to complete previous committed tasks last week as regards to the work planned in that week, while monitoring the percentage of work accomplished by each developer. As this information is publicly told in this meeting to all peers, a common accountability of the whole group is established. This is done with all the developers. The second stage establishes commitment to the planned tasks for the coming week. The project manager describes, for every developer, what tasks were originally assigned and agreed to be done in the coming week; the developer can either re-commit for this schedule, or to change the schedule due to the need to complete last week's tasks. This information is being logged in the "last week next week" weekly report. This new schedule change is being recorded by the project manager and used to update the project plan, handling resources allocation problems (multi projects environment) as they occur.

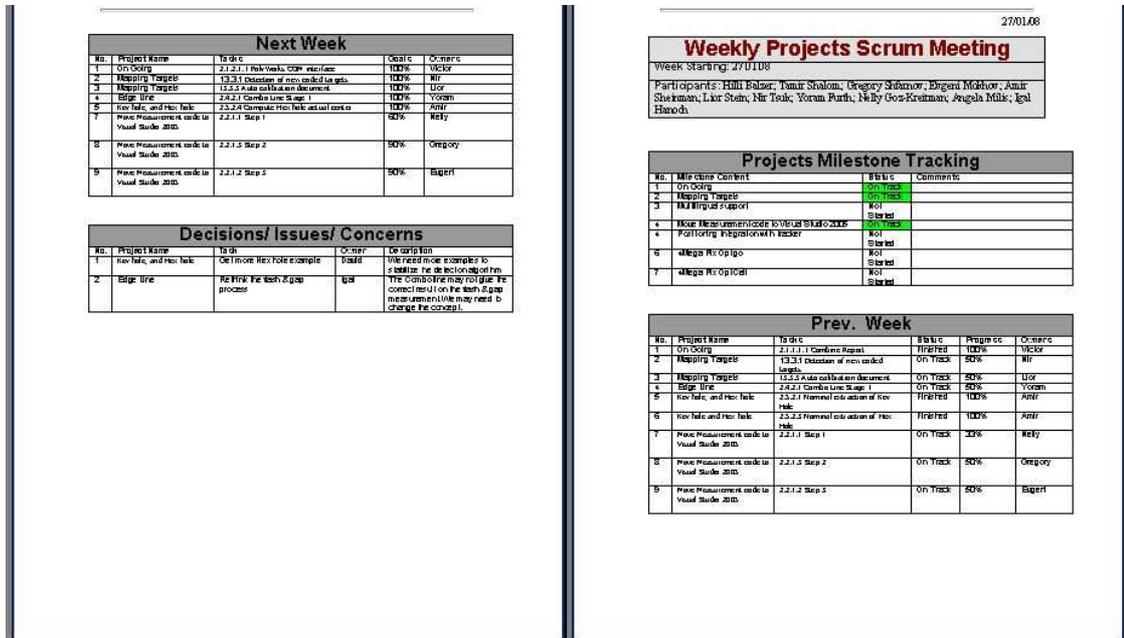


Figure 1: Weekly projects meeting status report

The project manager logs all developers' individual level of completion, into an MS-Excel report. The weekly average completion percent represents the developers working velocity. The velocity can have 3 types of values:

- Below 100% - Negative Velocity - This means that the project was late for that specific week.
- 100% - Buoyant Velocity – This means that the project is as planned / on track for that specific week.
- Above 100% - Positive Velocity – This means that the project is heading its objectives for that specific week.

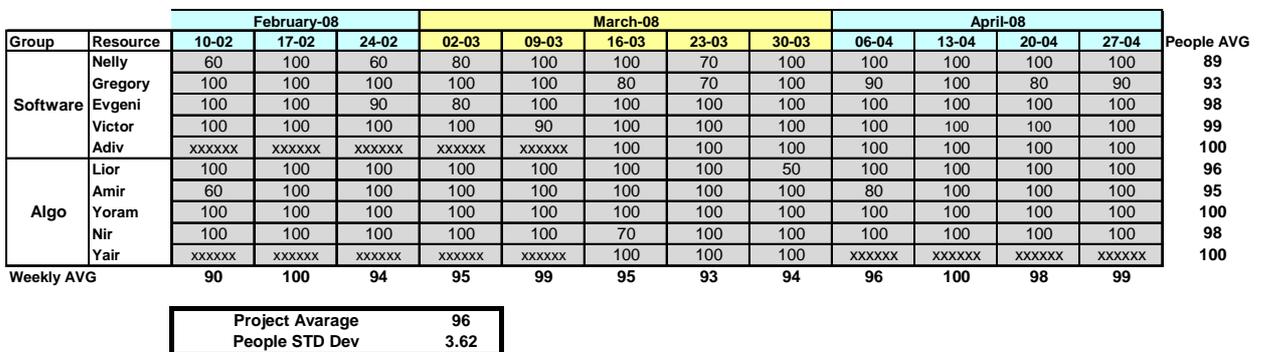


Figure 2: Project Developers Velocity monitor report

Measuring the Project Developers Velocity is in a higher granularity level than the project tasks status. The project tasks statuses are affected by both planned and unplanned changes in the project. While the Project Developers Velocity monitors the real work done compared to the planned work in the minimal work breakdown (1 week).

This method produces readily-actionable data: We can evaluate everybody, from the project manager and development manager (using total/weekly/personal averages and Project Standard deviation), to individual contributors - and take immediate action: In a week or two we can see if the action was effective.

For example, in Figure 2 above both the project average and standard deviation point towards a relatively high level of control firmness, with average velocity close to 100 (at 96), and a minute standard deviation. However, velocity deterioration of even one developer will markedly raise the standard deviation, and call for immediate action. Similarly, low levels of average velocity may require process adaptations, and very high velocity levels may point towards insufficient personnel utilization; in both cases, corrective action influence could be sensed in a matter of a few weeks.

Project assessment using these new tools and data

When the project has been completed, the project manager can collect the developers' statistical data of the work velocity throughout the project lifetime, and can analyze each developer in terms of personal contribution to the project success. When one is trying to measure the success or failure of a project, it is now possible to separate the different components of the result, so it will be possible to have a different success or failure result to each factor, regardless of the effect of the ongoing changes stream on the project.

Such information about the personal contribution of each developer to the overall result of the project can be used in a personal review meeting with the developers, showing the collected data regarding his accountability and his work velocity.

As with any other measurement factor, this too can be used by people for creating bias in the developers' results. But never the less, this ability is reduced due to the publicity principle that is used in the weekly "last week next week" meetings.

RESEARCH RESULTS AND INDUSTRIAL IMPACT

Results

The purpose of this case study is to show how these new proposed accountability-enhancing methods and tools work in an R&D organization in day-by-day operations, in a multi-projects environment. The results showed improvements in the overall projects success rates, and that could be manifested in several major factors such as projects quality, personnel perception of projects success, and employee general satisfaction.

Employee Survey

The company used a survey service which compares several factors and compares them to the industry average. The survey was done in 2008, and was taken by all the company employees. The data was collected anonymously and handled and analyzed by 3rd party survey service company. Results were compared to external Benchmarks from the survey service company's Employee Research Database (for the same or similar industries).

Initial numbers also testify for improved employee satisfaction within the group that follows this method, as compared to the entire corporation.

Group	Average	
		Company Leadership
70	28	I see strong evidence of effective leadership from senior leaders
48	17	Employees receive all the information they need to understand the organization's strategy and priorities
		Direct Manager
70	49	My manager provides the support I need to succeed
65	48	My manager involves me in decisions that affect my work
61	39	My manager provides regular feedback that allows me to improve my performance
		Peers
78	67	My coworkers respect my thoughts and feelings
		Customers
57	64	My relationships with my internal / external customers (clients) are rewarding
86	51	We are responsive to the changing needs of our customers
		People Focus
74	45	I am treated like a valued member of this organization
78	33	Employees are treated as important contributors rather than as a cost of doing business

Figure 5: An Employee Survey results, 2008

The Group column measured the organization survey participants after the new methods were accepted in the company, and were merged into the day by day work. The average column represents the average of similar R&D companies in the similar markets.

It is clear that the developers feels accountable for the organization goals, they common destiny sharing, and it is clear that every developer feels as a major part of the creation and ownership of the organization outcomes (projects). Comparing these results (Group column) with the industry average (average column) is especially manifested where the differences are maximal: Employees feel both well-lead (top row), and that their contribution is important (bottom row). Other important observations points towards effective change management (second row, and third from bottom regarding customer responsiveness); and overall proper group conduct (manager's support and feedback; coworkers' support). These results support and confirm the efficacy of the managerial method.

CONCLUSIONS

Software engineers are challenged daily with particularly high levels of uncertainty. Contrary to other fields of engineering, there are no standard solutions, methods or regulations to provide assurance. The relative ease of SW modifications, as opposed for example to hardware, encourages markets and managers to require numerous changes, many of them with excellent reasoning. Therefore, both the SW discipline as such, and its customers, contribute to a climate of continuous change. This climate challenges engineers and management with the formidable task of keeping focus on shifting targets, preserving accountability and quality, all under the real-life pressures of time, budget, market and competition.

In essence, time is the key resource for software engineers; other factors, like content, budget or quality, can be readily converted into time constraints. Consequently, software engineering methodologies use time management, or specifically higher schedule granularity, to adapt to this climate of continuous change; a notable example is Agile programming. In this paper this concept is further explored, via high time-granularity project management measurement methodology.

By measuring individual software professional's velocity, on a weekly basis, a metric, that is fast and actionable enough to adapt, is established. Simple statistical tools provide quick departmental, project and managerial-level views. Combining this method with public weekly sessions where all team members share accountability for ever-changing tasks, where problems are handled and where credit is granted, enhances accountability and satisfaction. The high-resolution, public measurement enables separation of internal and external factors, providing the metric with the coveted, but rather elusive, trust of software professionals.

A case study, analyzing this method's influence in a real-life R&D environment, reveals the method's practical value for practitioners at all levels. An external employee-satisfaction survey details multidimensional advantages, both for leaders and for employees. While further study is required to quantify this method's influence on business performance, it seems to hold significant practical value for software projects' success.

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THE ESTIMATION OF PERFORMANCE EFFECTIVENESS OF ALBANIAN TOURISM STRATEGY . THE KEY PERFORMANCE INDICATORS

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Albanian tourism industry's three main issues are:

1. enhancing the competitiveness of Albanian tourism in our region and Europe.
2. The development of product and services related to tourism
3. The development of the integrated tourism management system.

The methodology

First the research starts from studying the implementation of each project according to the approved budget by MTRS based on existing secondary sources.

Second the research purposed to create the one single index that combines the existing indices developed by different units and departments in charge of performance evaluation.

Third we developed index to measure each strategic goal because there is a possibility that some strategic goal under some key strategy will be more successful than others.

Forth the index has been created to measure the effectiveness of the three key strategies.

Fifth in order to pinpoint area where improvements are needed we seek to develop the 3-dimensional analysis by comparing the budget given with their relative importance and the actual delivery of these goals.

The findings from the survey and secondary sources revealed good performance results but where we consider specific strategies goal independently we could pinpoint to where the adjustment and improvement could be made. SWOT analysis has been done to capture the current situation of the tourism strategy.

To manage the competitiveness of the country's tourism one has to pay attention to carving a good strategy and follow through with a successful implementation and control process.

Key words: tourism strategy performance effectiveness index.

INTRODUCTION

Being competitive is crucial to business organisation to survive the global competitors. The same is also true for the public organisation which must also be competent in their products or services.

Tourism is one of the main income-generating industries in many developed as well as developing nations. Therefore to manage the competitiveness of the country's tourism, one has to pay attention to carving a good strategy and follow through with a successful implementation and control process. There are up to three key strategic areas for Albanian Tourism Ministry:

1. enhancing the competitiveness of Albanian tourism
2. the development of product and services related to tourism
3. the development of the integrated tourism management system

In this paper, key performance indicators are developed as tools to drive, monitor and measure the effectiveness of the country's tourism strategy.

The approach is to collect data on performance by asking the tourists how satisfied they are with the performance undertaken to fulfill each strategic goal and further ask them to rank order the importance of each strategic goal to understand the relative importance among the goals itself. Moreover, some specific group of stakeholders were surveyed or interviewed to get the performance score.

This research is an empirical study to establish a complete performance management system for the Albanian Tourism Ministry to manage its tourism strategy.

Our objectives are:

1. To study and design the key performance indicators and indices appropriate to be regularly used to monitor working in progress and evaluate the end result at the end of strategic term (2005-2009)
2. To collect the information in order to develop indices for our newly-designed key performance indicators
3. To access the problems, obstacles, and limitations of work or people responsible for the projects including recommendations of methods to improve upon those conditions and purpose alternatives to resolve those issues.

METHODOLOGY

First, the research starts from studying the implementation of each project according to the approved budget by the MTS (2004-2008) based on existing secondary sources. Next we categorized projects along three key strategies in order to see the distribution of projects and their budgets. The distribution of projects and their budget represents attempt to launch different projects to achieve the three key strategies. It is observed that the number of approved projects was not evenly distributed among the three key strategies. Approved projects deemed to fulfill the second strategy had the highest number. In contrast, the third strategy had the least number of approved projects. Furthermore the distribution of budget doesn't have any correlation with the number of projects, for example, strategic goal number one has only 58 projects but received the total budget of 5.237.312.100 baht.

Second, the research purposed to create the one single index that combines the existing indices developed by different units or departments in charge of performance evaluation. We collect different evaluation forms and measurement techniques and combined them into the only one that reflects the overall effectiveness of the performance. The one single index encompasses 1) number of Albanian and foreign tourists each year and the percentage of change

in the number of tourists 2) average length of stay per tourist 3) amount of money spent per tourist per day and the percentage change of spending 4) revenue from tourism and the percentage of change of revenue from tourism 5) recipient of national or international awards.

Third, we developed index to measure each strategic goal because there is a possibility that some strategic goal under some key strategy will be more successful than others. Three key strategies has quite a broad scope and focus, therefore it is hard to directly evaluate them. We developed key performance indicators based on our interpretation of the 11 key strategic goals by asking ourselves what are the performance objectives of these goals, what are the key results of these goals? The key results expected are called key result areas. Key result areas should represent the critical or essential results that will make a substantial performance difference.

Fourth, the index has been created to measure the effectiveness of the three key strategies. Since the three key strategies have relatively broad scope and focus, therefore it is hard to directly evaluate them. As a result indirect method of evaluation was introduced based on the calculation of the combined score from each strategic goal attached to each respective strategy. In order to assess correctly, there exists a need to understand the relativity of importance of each of the strategic goal as shown in the formula below.

$$KPI_1 = \frac{\sum_{i=1}^n I_i \times KPI_i}{\sum_{i=1}^n I_i}$$

I_i: Relative importance of strategic goal

KPI_i: Average score of all KPIs of the strategic goal

n: number of strategic goals within strategy 1

Fifth, in order to pinpoint area where improvements are needed, we seek to develop the 3-dimensional analysis by comparing the budget given, with the relative importance and the actual delivery of these goals.

SURVEY METHOD

Target population

Target population consists of five main groups: (1) tourists (11,516,936 foreign tourists and 14,037,275 Albanian tourists), (2) 13 ministries, (3) public and private organizations that relates to tourism, (4) entrepreneurs/owners of hotels/resorts, travel agents. There were about 5,431

hotels in the data base in year 2006, whereas there were 854 companies in the list of Tourism Development Office and (5) province – level and local – level offices.

Sampling technique

Yamane sampling technique has been utilized. This method has been used to sampling the tourists groups (foreigners and Albanian), TAOs, and municipalities.

$$n = \frac{N}{1 + Ne^2}$$

Next, we use specific group techniques to specify some other sample groups namely: ministries, travel-related public and private organizations, PAOs, and provinces.

Data collection

We surveyed over 1000 foreign tourists, 1000 Albanian tourists, 7 ministries, 14 travel – related public and private organizations. We sent 1500 questionnaires to the sampling size of 5431 hotels in 7 geographic regions. We sent over 1000 sets of questionnaires to the sampling size of more than 5000 entrepreneurs/owners of hotel resorts, travel agents.

Materials

Up to six different sets of questionnaires have been used to collect data from different respondents group. The questions varied according to the information we seek from those responding groups. Examples are when we asked the tourists, apart from demographics, behavioral and psychographic information; rankings of strategic goals that affect their decision to choose Albanian as traveling destinations were asked along with the satisfaction/success level the tourist's experiences in different activities they are exposed to. The level of satisfaction/success level were measured by a 5 point Likert scale ranging from 1 (not satisfied) to 5 (very satisfied). Table 1 illustrates the example of questions in the questionnaire.

<i>Section</i>	<i>Questions</i>
<i>General information about the respondents</i>	<i>Age</i> <i>Gender</i> <i>Income</i> <i>Nationality</i> <i>Occupation</i> <i>Type of tourism activities</i> <i>Period of travel</i> <i>Frequency of travel</i> <i>Possibility of traveling within three months</i>
<i>Satisfaction level/success level tourists experiences</i>	<i>Strategy no.1 enhancing the competitiveness of tourism</i> <i>Strategy no.2 the development of product and services related to tourism</i>
<i>Execution of tourism strategy development mode (domestic and market)</i>	<i>Strategy no.1- strategic goal no 1 promoting potential to compete in the proactive international</i> <i>Strategy no.2- strategic goal no 1 building, developing, renovating and connecting tourism sites</i>

Table 1 Examples of questions in the questionnaire

Procedure

Data collection from authorities, Tourism Development Office (later called TDO), universities and travel-related associations were done through questionnaire surveys and interviews. Also, questionnaires were sent to municipalities, travel agents and regional travel-related associations through returned mail. Questionnaires surveys were distributed by hand to tourists in cities and suburban areas.

RESULTS

Data analysis

The responses were from 1005 Albanian tourists, 1091 foreign tourists, 220 hotels, 115 related companies, 42 provinces, 30 sports, tourism and entertainment centers, and 8 regional travel-related associations. Additionally, answers from 14 specific study groups were completed for data collection purpose, for example, Tourist Police and so on.

Survey results are classified into 5 parts: (1) the total score received from performance of all three strategies, (2) the score received from each strategic goal, (3) relative importance of each strategic goal within each key strategy, analysis of correlations between the allocation budget and the relative importance of each strategic goal, and performance score, (5) analysis of recommendation from foreign tourists regarding relative importance of each strategic goals and actual score received.

Analysis of the performance of all the strategies

Firstly, as shown in table 2, the study shows the total score received from performance of all three strategies to be 3.4 on the scale of 1 to 5 (where 1.0 – 2.0 = need immediate improvement, 2.0 - 3.0 = need improvement, 3.0 – 3.5 = satisfactory, 3.5 – 4.0 = good, 4.0 – 5.0 = excellent). The overall score of 3.4 reflects performance at satisfactory level. Considering the 5 key performance indicators that reflect the total score item, we found that the key performance indicator of recipient of national or international award obtained the maximum score of 5 (where 1 = receiving none, 2 = receiving less than 5 awards, 3 = receiving less than 20 awards, 4 = receiving less than 40 awards, 5 = receiving more than 40 awards). On the contrary, the result shows score of 1 from revenue from tourism (1 = below target by 15%, 2 = below target by less than 15%, 3 = below target by less than 10%, 4 = below target by less than 5%, 5 = meet or exceed target).

Furthermore, amount of spending per tourist per day and the number of Albanian and foreign tourists per year yielded the score of 3. Due to having low tourists number and the low spending per tourist per day, Albanian tourism industry's revenue from tourism fall so much below target despite the fact that the industry attained the targeted average length of stay per tourist.

<i>Rank</i>	<i>Key performance indicators</i>	<i>Score</i>	<i>Sources</i>
1	<i>Number of foreign tourists (year 2006, targeted tourists = 15.12 million persons, actual = 13.65 million persons, therefore below target by 9.7%)</i>	3.00	<i>TAT website</i>
2	<i>Average length of stay per tourist (year 2005, target length = 8.1 days, actual = 8.2 days, therefore exceed target)</i>	5.00	<i>TAT website</i>
3	<i>Amount of spending per tourist per day (year 2005, target spending = 4,150 baht/day, actual = 3,890 baht/day, therefore below target by 6.26%)</i>	3.00	<i>TAT website</i>
4	<i>Revenue from tourism (year 2005, target revenue (million baht) = 449,768, actual 367,380, therefore below target by 18.3%)</i>	1.00	<i>TAT website</i>
5	<i>Recipient of national or international award (actual = 42 national and international awards)</i>	5.00	<i>TAT</i>
	<i>Average score</i>	3.40	

Table 2: Total score received from performance of all three strategies

Analysis of performance under each strategic goal

Results from score achieved by each strategic goal represent how effectively the goal has been carried out. This renders the opportunity to single out/correct the particular performance that is weak, ineffective or required immediate remedy. Table 3 shows the three key strategies and their 11 strategic goals. Table 4 shows the example of strategy number 1 – strategic goal number 2, its key results areas and its key performance indicators. Whereas Table 5 shows the score received from the execution of strategy 1 – the enhancement of the competitiveness of tourism, with respect to the second strategic goal which is – promoting Albania as gateway to Europe region tourism. Up to 8 key performance indicators are utilized to measure the execution of this strategic goal alone. The result shows that per one single key result area, there are three key performance indicators in this category and the average score is 4.23.

Strategy No.	Strategy description	11 main strategic goals
1	<i>Enhancing the competitiveness of Albanian tourism</i>	<i>Promoting development potential to compete in the proactive mode (domestic and overseas market)</i> <i>Promoting Albania as gateway to Europe region tourism</i> <i>Developing information technology</i> <i>Promoting international tourism</i>
2	<i>The development of product and services related to tourism</i>	<i>Building, developing, renovating and connecting tourism sites</i> <i>Improving goods and services standards</i> <i>Raising standards to provide convenience to tourists</i> <i>Developing standards to provide safety for tourists' lives and property</i>
3	<i>The development of the integrated tourism management system</i>	<i>Improving capability of Ministry of Sports and Tourism to be the main driving force national tourism strategy</i> <i>Promoting efficiency of integrated tourism management encompassing all levels and sectors and countries</i> <i>Adjusting laws, rules and regulations related to tourism</i>

Table 3 Three key tourism strategies and main strategic goals

<i>Strategic goal</i>	<i>Key result areas</i>	<i>Key performance indicators</i>
<i>Promoting Albania as gateway to Europe region tourism</i>	<i>1. Behavior of foreign tourists in choosing Albania as connecting points to neighboring countries</i>	<i>1. Agree that Albania is the focal point for traveling in this region 2. Percentage of foreign tourists who previously used Albania as focal point for their traveling destination 3. Ease of traveling to neighboring countries from Albania</i>
	<i>2. Ease of traveling from Albania to neighboring countries</i>	<i>1. Ease of traveling to neighboring countries from Albania 2. Number of regional airports is enough to cover traveling to different Regions 3. Number of land transportation that connect Albania to neighboring countries and level of convenience of traveling</i>
	<i>3. Convenience on application</i>	<i>1. Ease of applying visa on arrival which renders comfort to travel to other European nations 2. Convenient in applying for visa on arrival</i>

Table 4 Samples of selected strategic goals, key results areas and key performance indicators
(Strategy 1 – strategic goal 2: Promoting Albania as gateway to Europe Region tourism, 3 key result areas and their 8 key performance indicators)

<i>Strategic goal</i>	<i>Key result areas</i>	<i>Key performance indicators</i>	<i>Score</i>	<i>Sources</i>
<i>Promoting Albania as gateway to European region tourism</i>	<i>1. Behavior of foreign tourists in choosing Albania as connecting points to neighboring countries</i>	<i>1. Agree that Albania is the focal point for traveling in this region</i>	4.05	<i>Albanian tourists</i>
			3.86	<i>Foreign Tourists</i>
		<i>2. Percentage of foreign tourists who previously used Albania as focal point for their traveling destination</i>	4.00	<i>Foreign Tourists</i>
		<i>3. Acceptance that Albania is the local point for traveling in this region</i>	5.00	<i>Foreign Tourists</i>
		<i>Average score (key result area no. 1)</i>	4.23	<i>Travel agents</i>

Table 5 Promoting Thailand as gateway to Asian region tourism, key results areas, key performance indicators, score, and sources of score received

Analysis of relative importance of the each strategic goal and average performance

The relative importance of each strategic goal within each key strategy is believed to be different. Therefore such data have been collected from opinions of foreign and Thai tourists, province, PAO and municipalities together with entrepreneurs, travel agents and hotels.

In summary, the first strategy received the total score of 3536, the second strategy got 3534, and the third strategy performed best at 3637. To conclude the three strategies received the total score ranging from 3534 to 3637 indicating performance at above satisfactory level.

<i>Strategy 1: Enhancing the competitiveness of Thailand tourism</i>			
<i>Strategy no.</i>	<i>Strategic goals</i>	<i>Relative importance</i>	<i>Score</i>
1	<i>Enhancing tourism industry's potentials to compete in the proactive mode</i>	0.370	3.79
2	<i>Promoting Albania as a gateway to European region tourism</i>	0.178	3.81
3	<i>Developing information technology</i>	0.213	3.39
4	<i>Promoting international tourism</i>	0.238	3.08
<i>Weighted average score of strategy 1</i>		3.536	
<i>Strategy 2: The development of product and services related to tourism</i>			
1	<i>Building, developing, renovating, and connecting tourism sites</i>	0.254	3.41
2	<i>Improving goods and services standards</i>	0.197	3.79
3	<i>Raising standards to provide convenience to tourists</i>	0.291	3.58
4	<i>Developing standards to provide safety for tourists lives and property</i>	0.258	3.41
<i>Weighted average score of strategy 2</i>		3.534	
<i>Strategy 3: The development of the integrated tourism management system</i>			
1	<i>Improving capability of Ministry of Sports and Tourism to be the main driving force national tourism strategy</i>	0.299	3.67
2	<i>Promoting efficiency of integrated tourism management encompassing all levels and sectors and countries</i>	0.524	3.55
3	<i>Adjusting laws, rules and regulations related to tourism</i>	0.177	3.84
<i>Weighted average score of strategy 3</i>		3.637	

Table 6 Scores of the three key strategies from the key performance indicator

3-dimensional analysis of budget, relative importance and performance score

The intention is to comparatively study the size of the budget received with its relative importance and the actual performance of these strategy in order to analyze whether the budget has been well spent and whether or whether or not it is based on sound economic principles.

Our recommendation is to build more new tourist sites and to increase the budget to meet the tourist demands for these sites to be renovated. Additionally, one noteworthy result from the analysis showed that performance score received has fallen into either good or satisfactory level only across all the 11 strategic goals (table 7). None could achieve the excellent score.

<i>Strategy – strategy goal</i>	<i>Budget size</i>	<i>Relative importance</i>	<i>Category score received</i>
<i>Strategy 1: Enhancing the competitiveness of Thailand tourism</i>			
<i>Enhancing tourism industry's potentials to compete in the proactive mode</i>	<i>High</i>	<i>High</i>	<i>Good</i>
<i>Promoting Albania as a gateway to European region tourism</i>	<i>Low</i>	<i>Medium</i>	<i>Good</i>
<i>Developing information technology</i>	<i>Low</i>	<i>Medium</i>	<i>Satisfactory</i>
<i>Promoting international tourism</i>	<i>Medium</i>	<i>Medium</i>	<i>Satisfactory</i>
<i>Strategy 2: The development of product and services related to tourism</i>			
<i>Building, developing, renovating, and connecting tourism sites</i>	<i>Medium</i>	<i>High</i>	<i>Satisfactory</i>
<i>Improving goods and services standards</i>	<i>Low</i>	<i>Medium</i>	<i>Good</i>
<i>Raising standards to provide convenience to tourists</i>	<i>High</i>	<i>High</i>	<i>Good</i>
<i>Developing standards to provide safety for tourists lives and property</i>	<i>Medium</i>	<i>High</i>	<i>Satisfactory</i>
<i>Strategy 3: The development of the integrated tourism management system</i>			
<i>Improving capability of Ministry of Sports and Tourism to be the main driving force national tourism strategy</i>	<i>Low</i>	<i>Low</i>	<i>Good</i>
<i>Promoting efficiency of integrated tourism management encompassing all levels and sectors and countries</i>	<i>Low</i>	<i>Medium</i>	<i>Good</i>
<i>Adjusting laws, rules and regulations related to tourism</i>	<i>Low</i>	<i>Low</i>	<i>Good</i>

Table 7 Comparison between budget, relative importance and performance score

Analysis of the relationship between relative importance and performance score

Based on the rationale that foreign tourists' through their spending generates capital inflow into Albania foreign tourists' preference affects the revenue and the growth potentials of Albanian tourism. Thus, the analysis of recommendation from foreign tourists regarding the relative importance of each strategic goal has been separately studied. We compare the relative importance foreign tourists gave to each strategic goal with the actual performance score received. From a survey of 1091 foreign tourists, we found that the enhancing tourism industry's potentials to compete in a proactive mode yielded satisfactory score from its performance but received high relative importance in the eyes of the foreign tourists (see table 8). This pinpoints to the immediate improvement in this strategy, particularly, to proactively engage in promoting tourism in foreign countries.

<i>Strategy – strategy goal</i>	<i>Relative importance</i>	<i>Category score received</i>
<i>Strategy 1: Enhancing the competitiveness of Thailand tourism</i>		
<i>Enhancing tourism industry's potentials to compete in the proactive mode</i>	<i>High</i>	<i>Satisfactory</i>
<i>Promoting Albanian as a gateway to European region tourism</i>	<i>High</i>	<i>Good</i>
<i>Developing information technology</i>	<i>Low</i>	<i>Good</i>
<i>Promoting international tourism</i>	<i>Medium</i>	<i>Need improvement</i>
<i>Strategy 2: The development of product and services related to tourism</i>		
<i>Building, developing, renovating, and connecting tourism sites</i>	<i>High</i>	<i>Satisfactory</i>
<i>Improving goods and services standards</i>	<i>High</i>	<i>Good</i>
<i>Raising standards to provide convenience to tourists</i>	<i>High</i>	<i>Good</i>
<i>Developing standards to provide safety for tourists lives and property</i>	<i>High</i>	<i>Satisfactory</i>

Table 8 Relationship between relative importance and performance score

Note: strategy 3 is not studied because there are not directly related to foreign tourists

<i>Internal factors</i>	<p style="text-align: center;"><i>Strengths</i></p> <p style="text-align: center;"><i>Comprehensiveness of the tourism strategy</i></p> <p style="text-align: center;"><i>Importance given to the assessment of results of activities under the tourism strategy</i></p> <p style="text-align: center;"><i>Emphasis on integrated cooperation at all levels both public and private sectors</i></p> <p style="text-align: center;"><i>Clarity of goals</i></p>	<p style="text-align: center;"><i>Weakness</i></p> <p style="text-align: center;"><i>Overemphasis of goals that focus on economic returns</i></p> <p style="text-align: center;"><i>Coordination gap stemming from a large number of different organization characters and levels</i></p> <p style="text-align: center;"><i>Incompatibility of activities: national level activities versus locally launched activities.</i></p>
<i>External factors</i>	<p style="text-align: center;"><i>Opportunities</i></p> <p style="text-align: center;"><i>Tourism strategy plan 2004-2008 could be later utilized as master plan</i></p> <p style="text-align: center;"><i>Growth of tourism industry as each organizations both public and private launch their work to achieve the strategic goals in tourism strategy 2004-2008</i></p>	<p style="text-align: center;"><i>Threats</i></p> <p style="text-align: center;"><i>Redundancy of plan such as tourism development strategic plan 2007-2010 was developed while the tourism strategy 2004-2008 is still in place</i></p> <p style="text-align: center;"><i>Unethical behavior from private organizations and from unethical tourists which exploit natural sources</i></p>

SWOT analysis of Albanian tourism strategy 2004-2008

IMPLICATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This study has given the relevant party whose job is to promote Albanian tourism the valid measurement in the form of concrete feedback on the effectiveness of Albanian tourism strategy 2004-2008, the operations, the marketing along with the problems and obstacles related to all stakeholders. In view of performance management, the research has rendered the appraisal tools (key performance indicators) to monitor and control its strategy and complete the strategic management process. We expect this research to contribute towards improvement of the work of all relevant authorities and offices both public and private whose responsibility is to ensure and promote growth of Albanian tourism industry. Hopefully, this study will contribute towards increasing the income of our people whose earnings come from country's tourism.

PRODUCTIVITY GAINS THROUGH ORGANIZATIONAL CHANGE: A CASE STUDY IN THE CANADIAN FURNITURE INDUSTRY

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Turbulence in the economic environment is being amplified by increased competition from emerging countries, particularly China, forcing organizations to adopt new strategic directions and often change their work organization to obtain more flexibility and thus increase productivity. Two different types of flexibility, usually presented as alternatives, can be developed to do so: external flexibility, typical of the Fordist-Taylorist period, essentially consists in externalizing market adjustment problems by varying remuneration or the volume of the workforce. Internal flexibility, on the other hand, proceeds by investing in workforce training so that workers become more versatile, and thus more productive; this type of flexibility is central in the Toyotist model.

This paper describes the process of transformation in a Canadian manufacturing company and illustrates that the two types of flexibility can coexist. It also answers a fundamental question: on which key elements should we intervene in order to rapidly bring about change and obtain the flexibility needed for productivity gains that will significantly impact a company's profitability? This case study stems from action-research activities conducted within a furniture manufacturing company located in Québec. According to the consultancy mandate agreed upon, the objective was to increase productivity by 30%, despite the reopening of the collective agreement that led to more than 15% wage reductions, within a unionized context. The company's financial situation was so precarious that this productivity objective also had to be achieved within a period of 12 months.

Section: Case study.

Keywords: Change in work organization, flexibility, productivity, furniture manufacturing, Québec.

INTRODUCTION

Turbulence in the economic environment is being amplified by increased competition from emerging countries, particularly China, forcing organizations to adopt new strategic directions and often change their work organization to obtain more flexibility and thus increase productivity. Two different types of flexibility, usually presented as alternatives, can be developed to do so; external flexibility, typical of the Fordist-Taylorist period, essentially consists in externalizing market adjustment problems by varying remuneration or the volume of the workforce. Internal flexibility, on the other hand, proceeds by investing in workforce training so that workers become more versatile, and thus more productive; this type of flexibility is central in the Toyotist model.

This paper describes the process of transformation in a Canadian manufacturing company and illustrates that the two types of flexibility can coexist. It also answers a fundamental question: on which key elements should we intervene in order to rapidly bring about change and obtain the flexibility needed for productivity gains that will significantly impact the company's profitability? This case study stems from action-research activities conducted within

a furniture manufacturing company located in Québec. According to the consultancy mandate agreed upon, the objective was to increase productivity by 30%, despite the reopening of the collective agreement that led to more than 15% wage reductions, within a unionized context. The company's financial situation was so precarious that this productivity objective also had to be achieved within a period of 12 months.

CONTEXT

The company was founded in 1956 and is the largest Canadian manufacturer of top quality leather and fabric upholstered furniture. More than half of the 300 employees have more than 15 years seniority and 225 of them are unionized. The company's 600 customers are distributors throughout North America, mostly in the United States. In 2003 the company's sales were valued at more than \$40 million. But, like all Canadian manufacturing companies, it is now coming to grips with Asian competition, and especially competition from China, which since 2002 has been able to provide furniture with equal quality (in the eyes of consumers) at half the price. Moreover, 50% of the company's production is exported to the United States. With Canadian dollar's appreciation against its US counterpart (when this research was conducted in 2006) its fixed costs have increased by more than 40%. This places the company in a precarious financial situation.

Without studying in depth the complex set of factors operating behind major changes in work organization and production carried out during the past decade in a large number of Québec companies, we consider it is essential to start by identifying the basic economic factors that have forced Canadian manufacturing firms to increase their productivity in order to reposition themselves in the market. Three main interdependent factors can be observed: exchange rate appreciation, increased foreign competition and erosion of competitive advantages.

Exchange rate appreciation²⁴

The depreciation of the Canadian currency against the US dollar during the period preceding 2003 had made it easier to export to the United States, due to relatively lower selling prices.²⁵ During 2003 however the situation changed dramatically, due to the Canadian dollar's rapid appreciation, and this delivered a hard blow to the Canadian manufacturing sector. The real net exports of goods (the difference between exports and imports by volume) fell from a \$72.3 billion annual surplus in January 2002 to a \$6.4 billion deficit in July 2005, after reaching a \$17.5 billion deficit in January 2005.

²⁴ "It must also be understood that an exchange rate appreciation has affected Québec's major producers, since they are the ones who export their goods, while small producers sell their production on the local market. All companies, both large and small are affected in one way or another since it facilitates the entry of new competitors into Canada" (Lalonde, 2005).

²⁵ "Throughout the 1990s, a lower dollar value has increased domestic demand for goods manufactured in Canada through an increase in the price of imported products, while our exports cost more for foreign buyers. As for the weak dollar, which encourages our manufacturers, and the supply gap steadily decreases" (Wang, 2005).

Foreign competition

Foreign competition in the Canadian furniture industry mainly comes from Chinese manufacturers. Between 1993 and 2003, Canadian imports of Chinese products increased by 1,051% (Statistics Canada, 2003).²⁶ Indeed the countries benefiting from cheap labour²⁷ and able to produce inexpensive goods of acceptable quality have succeeded in carving out a sizeable niche for themselves among Western countries, thanks to globalization and the opening up of borders.

Québec's furniture manufacturers must thus deal increasingly with competition from China and its minimal production costs, which are being imposed globally within the industry. This giant is in fact the biggest threat to Québec's furniture industry on its two main geographic markets, representing over 98% of goods delivered: the internal market (Québec and Canada) and the United States (Lalonde 2005). Thus in total Chinese furniture imports increased from \$81.8 million in 1997 to \$230 million in 2000 (Wood Manufacturing Council, 2002), while China became the largest supplier of household furniture to the United States, with exports in this category increasing by 43% between 1997 and 2000.

Table 1 demonstrates the impressive growth of Chinese household furniture imports in Canada. The Chinese are especially threatening in the domestic furniture sub-sector, considered among Québec's manufacturers as a niche market. To counter this threat, several of them have decided to import components and even complete lines of furniture produced in China (subcontracting), and the production delocalization phenomenon has in fact seen significant growth over the last few years.

<i>Origin of Household Furniture Imports</i>	1993	2003
<i>United States</i>	66%	30%
<i>Italy</i>	6%	6%
<i>China</i>	5%	37%
<i>Malaysia</i>	2%	4%
<i>Thailand</i>	1%	4%
<i>Other</i>	20%	19%

Table 1: Origin of Household Furniture Imports (1993 and 2003)

Source: Statistics Canada in Industry Canada

²⁶ Note that Malaysia, Indonesia, Thailand and Mexico have also increased their exports to Canada with growth rates of 457%, 318%, 607% and 505% respectively" (Statistics Canada and Industry Canada. *The Household Furniture Industry in Canada*, 2003).

²⁷ The average hourly wage rate in the manufacturing sector is \$US 21.30 in the United States and \$US 18.35 in Canada yet as low as \$US 0.61 in China (*The China Report*, BMO Nesbitt Burns in Commerce, November 2004 edition). While labour costs represent more than 25% of furniture turnover in Québec, for certain manufacturers this data constitutes a challenge (Pinsonneault, 2004).

Erosion of competitive advantages

Given the context discussed earlier, Québec's furniture manufacturers obviously have to lower production costs, either by lowering workforce charges and by increasing productivity. But even a significant improvement on that score would probably not be sufficient to meet the competition. They should also rebuild competitive advantage by improvements in design, quality and delivery times. Québec manufacturers have the advantage of being close to two major furniture buyers, Canada and the United States. Their challenge however is to take advantage of this proximity by reducing delivery times (meet orders in a matter of days rather than months, like Chinese imports). As underlined by Perreault-Labelle (2006), it takes presently one to two months to receive a piece of furniture from Mao's country; yet Québec manufacturers hardly do better! "Although some companies deliver in ten days, on average they need four to six weeks." (Perreault-Labelle, 2006).

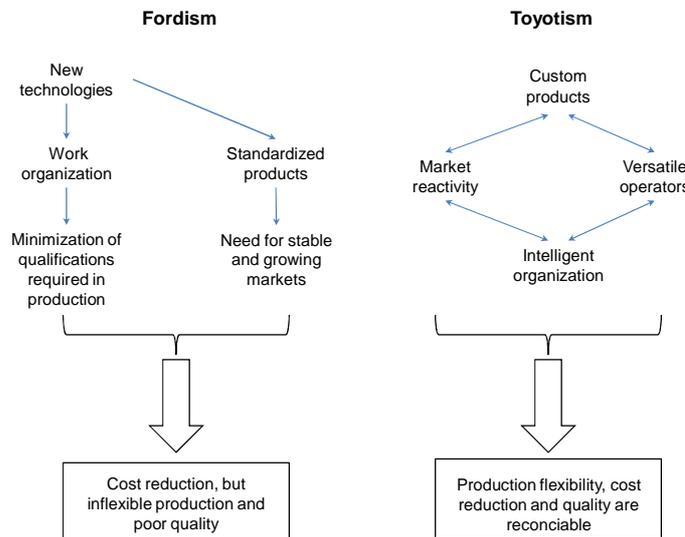
But in order to provide faster delivery, the manufacturing industry needs to move towards value-added production, that is production that eliminates any activities adding no value to the product (like storage or unnecessary worker's moving around). This calls for improvements in internal flexibility (not necessarily excluding external flexibility) and possibly for subcontracting some parts of the production process. We will see shortly that the company object of our case study did in fact adopt a hybrid production system in which large volumes of products are manufactured in China but customized in Québec.

CONCEPTUAL FRAMEWORK: WORK ORGANIZATION FORMATS

The disruptive changes in the production system that we just alluded to inevitably imply major work organization transformations. During recent decades traditional chain-work systems inspired by Taylorism and Fordism have revealed themselves to be ill suited to the organization's new needs for flexibility. Today's production processes are getting more and more complex. While previously production lines consisted of very segregated workstations and workers were required to act somewhat as robots, manufacturers now need to be able to modify their equipment in a few hours, thus quickly adapting to customer demands and producing different parts. This implies more qualified and competent workers. At the same time, thanks to globalization, there is a need to constantly increase productivity and reduce costs in order to remain competitive with other countries. Thus, the very principles of Taylorism and of chain-work production have been questioned.

From a theoretical point of view several authors (Aoki,1998; Boyer,1991; Coriat, 1993) have described the fundamental differences between the traditional system and the new forms of work organization consistent with Toyotism.

Figure 1: The Two Production Models Are Not Equivalent



The type of flexibility sought in the fordist-taylorist model refers to external flexibility, where little training is required and goods are standardized, thus allowing economies of scale. The toyotist model on the other hand calls for internal flexibility, where workers receive intensive training, thus making task rotation possible

This explains the growing interest (from practitioners as well as theoreticians) for new forms of work organization like workcells. Production cells involve the grouping of all items (machinery, manpower and support services) needed to manufacture a product or an entire range of components within an independent unit. Each unit operates as a small factory, so that that production flows are simplified and that products move faster through the various stages of the production process. This method results in the creation of a number of autonomous units, each assuming responsibility for production quality and efficiency. Production-cells allow the production of a range of assemblies or sub-assemblies, while process-cells can produce similar parts for use throughout the entire factory.

This new form of work organization can outright replace conventional production organization. It brings closer together the various production sequences. For this reason the workstations are physically close to each other, facilitating the movement of product components in each stage of the production process. In each workstation tools are also arranged in a manner that facilitates their access. The adoption of this form of work organization can thus increase productivity and reduce operating costs for companies, regardless of their size. Of course, this type of reorganization requires that employees develop a certain degree of versatility that enables them to rotate among workstations involving the same level of complexity; but this can be achieved with minimal investments.

The other arguments most often put forward for converting from line to cell production are: surface gains, improvements in productivity and quality, reductions in stock as well as indirect tasks and supervision. It seems that autonomous cells are better suited to the new requirements and challenges of production:

- a workcell can be easily duplicated if greater speed or quantities are required;
- cell production helps shorten production cycles and avoid work-in-progress stock accumulation. There is no need in fact to expect stoppages between various manufacturing stages, from material and part reception through to the finished product, ready for shipment. Thus, when the worker responsible for one workstation cannot immediately use parts delivered from the previous station, operations would temporarily stop at the latter;
- workcells reduce product manufacturing and delivery times;
- workcell autonomy is determined by manager/operator role combinations, meaning workers are given responsibilities, thus making it possible to convert the indirect (unproductive) into direct (production);
- workcells eliminate the need for storage and thus take up less space;
- worker empowerment results in more motivation and fewer errors;
- teamwork fosters motivation and collaboration.

METHODOLOGY

The previous list of benefits to be expected from cell production might look too nice to be true. Practitioners sometimes wonder if what they read in management literature actually applies to their « real world ». The present case study offers a limited but still quite convincing answer. This case study stems from action-research activities conducted within a furniture manufacturing company located in Québec. Action research implies that research work is carried out on real problems with members of a real organization. The objective is to take action following the researcher's intervention (Eden and Huxham, 1996). According to Arbnor and Bjerke's typology (1997), action-research takes place when there is an optimal balance between the researcher's interest in the company, in science and in the reference framework. These authors stress how difficult it is for action-research to be considered as a true science; for them, some stringent conditions have to be met:

1. The researcher's implication in the will to change the organization;
2. The research must have some involvement beyond the situation at hand;
3. The research must draw upon or develop certain theories;
4. The tools, techniques and methods used must be related to or anchored in existing theories.

These conditions are based on two principles: researcher transparency and integrity. Described below are the different steps in this research, which was undertaken between November 2006 and September 2007.

1. First of all, several meetings were held with a steering committee, composed of the company's president, the plant manager and the human resources director.
2. These meetings were supplemented with an analysis of all the company's documentation, including an analysis of the collective agreement. An informed diagnosis of the situation was then developed.
3. After detailed analysis of the situation, the researcher presented a solution to the steering committee. This proposal included four principal components: a communication plan of the reorganization project, a follow-up of the reorganization of the production layout, the creation of an employer/union committee, and the appropriate training of the supervisors considered as important elements in the changes.
4. This proposal was accepted and a detailed plan including specific objectives, timelines and resources necessary for implementing the plan were made available.
5. Because of the researcher's expertise in work organization interventions, it was possible to rigorously follow-up on the plan's four components. The development of a strong bond of confidence between the management committee and the researcher was developed during the implementation and monitoring of the strategic plan. Accordingly, during a period of 9 months, two days a week, the researcher actually visited the production locations to oversee the plan's implementation.

RESULTS

Transformation of the work organization

The following diagrams (Figure 2 and 3) illustrate the profound transformation of the work organization format that was adopted and implemented in our case study. As can be anticipated from the above discussions, the solution that was finally adopted to try and solve the problems at hand was a transition from linear to workcell organization. In establishing these cells, it was hoped that unproductive time could be reduced, and more specifically less time would be lost in moving equipment. To achieve this, entire departments (seamstresses, foam assembly workers and upholsterers) were reorganized and relocated, thus allowing 8 workcells to be implemented.

Figure-2 Simplified Diagram of Plant Linear “Push” Production System (Before Changes) – Lot system

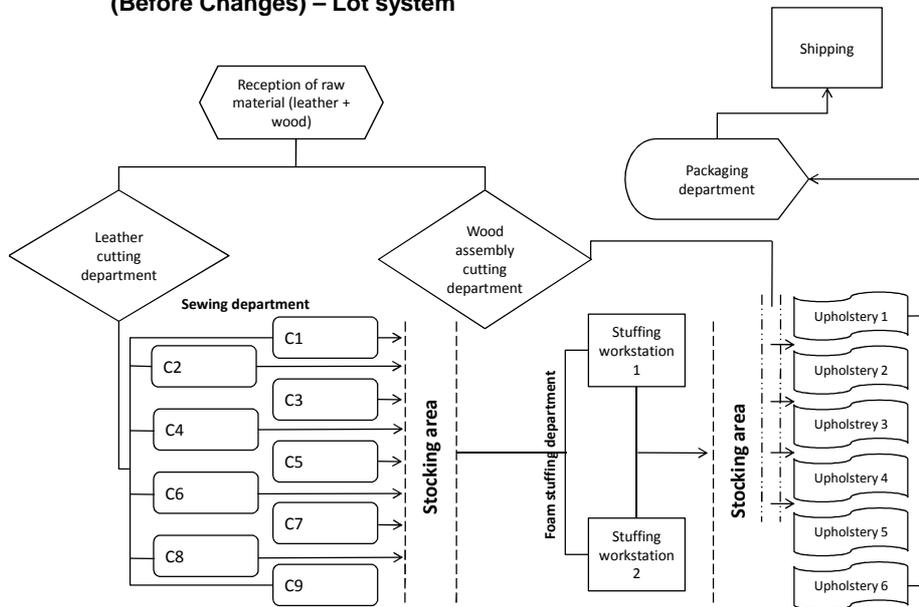
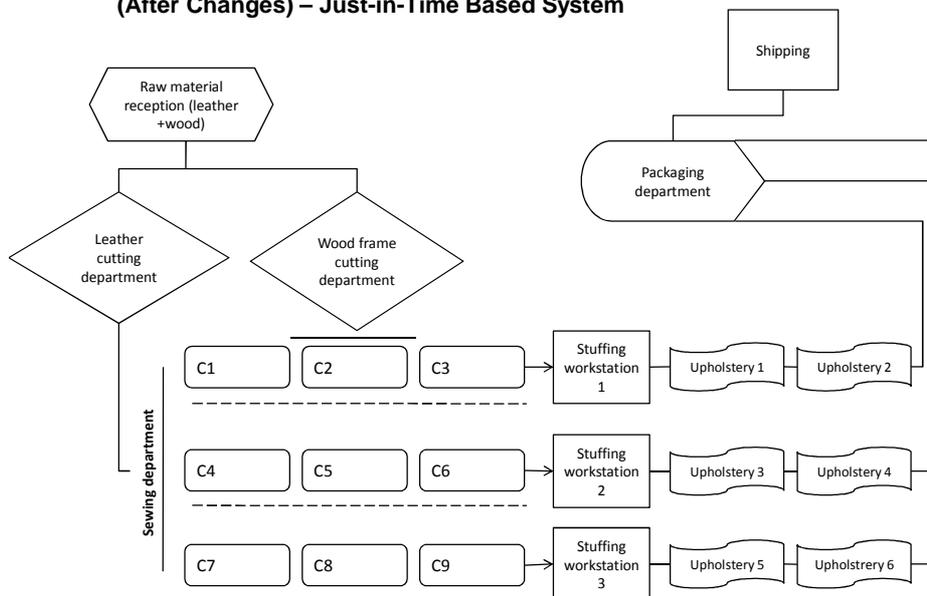


Figure-3 Simplified Diagram of Plant Workcell “Pull” Production System (After Changes) – Just-in-Time Based System



Below is a description of what happened in each one of the company departments following the planning of work reorganization.

1. For the cutting department (commonly known as the Wood Shop), the main objective was to reduce the use of hardwood by 80%, through building furniture frames with specialized plywood and thus reduce cutting time. The two activities planned to achieve this goal included a review of all specifications by the development/design department and the installation of a second digital cutting machine. The director of engineering piloted this project.
2. For the leather department, the objective was to increase quality control for tailors, thus reducing finished product rejects and costs related to poor quality. Note that before packing and shipping furniture, a high level of quality control was carried out. Each reject represented a waste of time and thus the selected activities to that effect were to provide training and increase the awareness for the nine leather tailors. Those responsible included the plant manager and the department supervisor.
3. For the fabric department, the primary objective was to reduce surplus stock. The activity envisaged to achieve this was to train the supervisor on how to plan more efficiently. The person responsible was the plant manager.
4. For the assembly department, priority was placed on the objective of increasing productivity by 40% in Caméléon furniture assembly. The activity retained was to analyze assembly schedule guidelines. Based on the diagnostic findings, a decision was made to set up a workstation to prepare the Caméléon product framing.
5. For the sewing department, the goal was to increase flexibility among the seamstresses, making it easier for them to move from one workcell to another, depending on production needs. This had to do with the company's need to reduce production times. In March/April the production/delivery time was about 14 weeks, but this had to be reduced to 5 or 6 weeks. Each workcell was designed to produce different furniture styles, yet the need for flexibility was a fundamental issue, since seamstresses had to be flexible enough to handle the different orders. A major training investment consequently had to be carried out. The persons responsible were the plant manager and the sewing department supervisor.
6. For the foam department, the objective was to improve workforce planning, due to the bottlenecks often caused by a lack of planning. The selected activity to do so was to train the supervisor. Several coaching follow-ups demonstrated however that the supervisor did not possess the skills needed for this position's new requirements. In the meantime a storekeeper position was created to ensure better management of all the hardware used in the company. The obvious solution was the reassignment of the supervisor to the storekeeper position. As for the supervisor, he was to be replaced by a team leader. It is important to understand that negotiations had been started with the union to promote certain employees as team leaders, and this would improve planning. Given this mutual finding, the company was able to secure the union's support. Team leaders were union employees who received a pay adjustment of two dollars an hour, and while they had no responsibility for discipline, they could help

with planning in their respective departments. Thus the supervisor was replaced by a team leader and not by another supervisor. The plant manager was responsible for naming the team leader, and where applicable for managing discipline.

7. For the upholstery department, two objectives had been identified. It is important to understand that this department serves as a hub in the production system, because the new work organization creates a pull instead of a push, meaning that it applies an upstream pull on production. Thus, if the upholsterers decide to reduce their productivity, the entire plant is affected. Note also that it was the upholsterers who were most affected by the reopening of the collective agreement. They had to undergo the largest drop in pay and as such their lack of motivation could be easily understood. Two goals thus had to be met. The first was to hire new upholsterers to increase production; yet we quickly recognized that external recruitment was not possible, and so a decision was quickly made to train apprentices. Also, an analysis of upholstery tasks was carried out, making it possible to determine which two tasks could be relocated and done by less qualified workers, and this resulted in accelerated production. The second objective was to systematically monitor the productivity of employees who were not producing the minimum expected yield. Meetings were held with about a dozen of them, first to make them aware of the problem and then to warn them of possible disciplinary action. A number of these measures were then administered. Note also that a very high percentage of the workforce responded to the productivity requests explained during the employee meetings that were held in accordance with the communication plan. The person responsible was the plant manager.
8. For the packing and shipping department, the objective was to eliminate the evening shift, implying the supervisor would return to a day schedule. The activity planned was to analyze the actual need of an evening shift. This confirmed that the shift was not really necessary, meaning adding a day supervisor to the department would mean significantly increased efficiency. The person responsible was the plant manager.
9. For the production-planning department (order office clerical staff), the objective was to reduce errors and their repercussions in terms of time, money and frustration. The activities set up for this were to establish a monitoring procedure and to finalize data entry using computer software. The person responsible was the department director.
10. For the stock department itself the objective was to establish better parts management for hardware and to relieve supervisors of this task. This called for the development of a layout plan for the plant's interior. The research and development center had been moved to another factory in Montréal, and this freed up space in which a stockroom could be set up. Moreover, in-house software needed to be developed in order to control the more than 1,000 different parts used to make the various furniture styles. The two persons responsible were the engineering director and the stockroom manager, who was the former supervisor of the foam department.

Challenges encountered during implementation

Of course, these multiple reorganizations required very good planning, especially since the company wanted to make these changes without having to close the factory and thus interfere with production. Between January and May 2007, the supervisors and management successfully modified the plant, according to the predetermined plans. At the beginning of these changes everything seemed to be in the wrong place and several bottlenecks appeared, thus further deteriorating employee productivity. The challenges did not stop there however. While the plant was being reorganized, the company established the different departmental action plans described above, in which productivity targets were identified for each department; a detailed review was carried out in each department and priorities were identified. Following this analysis, the global plant's productivity objective relative to furniture production was increased by 30%. While this may have been an ambitious goal, it was essential if the company was to survive financially. In order to succeed within the required time, the plan would require very rigorous application, strict follow-up, and of course sustained employee participation, despite the 15% wage reduction that preceded the reorganization. When building internal flexibility, teamwork and employee involvement in finding solutions for production problem became a major issue. This is where the HR and communication strategies established upfront proved to be essential.

Managing the change process

- The communication strategy

At the very beginning of the process, a communication plan was proposed to management, according to which all workers would be met in small groups of 20 (the plant currently employed approximately 225 unionized employees). During one day, the general manager and plant director would meet with all groups to explain the business objectives, the vision for this new organization of work and management's expectations regarding employees. The overall response was very good and the presentation highly appreciated. These meetings were planned both in terms of their content and form. They were expected to last approximately 45 minutes and include a 15-minute question period. The message for all employees would be the same, and it was important that the meeting be held without too much delay. For those who would have hoped to ask more questions or obtain more information, the management stated that during the reorganization of each workcell there would be problem-solving meetings in which information exchange would be the leitmotif. The desired impact was attained. More specifically, this approach eliminated rumours about a closure and massive job losses, and clear goals and roles were defined for each employee.

- Employer/union committee

Due to the flexibility required when operating in workcell mode, changes had to be made to the collective agreement. A historical review is needed here to provide a sense of the actual situation with respect to labour relations developments. In June 2005, a steering committee was created to focus on remuneration issues. The president then met with the union explaining that it was imperative that the collective agreement be reopened in order to invest in the factory. After a series of promising meetings, discussions had come to a halt. Then in early autumn 2005,

the management proceeded with two waves of layoffs (affecting 50 employees in total), an extraordinary event in this company. In late November 2005, the union issued statements to the employees and an agreement in principle was drawn up. The new collective agreement was accepted and the old agreement, which was to end in 2006, was replaced. The company could thus invest in the plant. An employer/union committee was then established on a permanent basis and regular meetings were held (once every 2 weeks), to provide all information to union members. These meetings strengthened the bonds of trust and gradually the union became an ally, permitting greater cooperation with employees. Many items were clarified, including the new role of supervisors, changes in the plant, the company's vision in the medium and long term, etc. This was reassuring for the union who had expressed dissatisfaction with certain points and seen the employer act quickly to make the possible rectifications, thus establishing greater flexibility in solving problems with the union.

These transformations also led to changes in the company's governance. As discussed by Bélanger, Lapointe and Lévesque (1998) "a new deal, redefining roles and responsibilities, is substituted to the previous strict division of roles and responsibilities. Unions become concerned with the company's economic performance, feeling that they are partly responsible since they participate in decisions leading to those results. Workers and unions now find themselves performing functions that had formerly belonged exclusively to management."

- Training and coaching

The various changes taking place in the company required that the supervisors' roles be transformed. Before the reorganization, supervisors were somewhat at the service of employees, who in turn were motivated by performance pay, and generally their output was very good. The supervisors' main task was to ensure employees did not lack anything in terms of the equipment and tools needed to obtain the expected productivity. Supervisors thus had excellent technical knowledge but were not necessarily apt as managers, neither in their capacity as personnel managers nor as performance efficiency planners within their workcell. For this reason, and in order to qualify them for their new roles, supervisors were given training sessions in communication, resistance to change and problem-solving skills. The general manager, plant manager and human resources director were required to attend all training sessions with these supervisors, in order to show that the company was taking this approach seriously and to ensure that the same message was being passed down the chain of command. Once this training was given to supervisors, follow-up in the form of real-time coaching was offered for a period of two days as they exercised their duties. It should be stated however that many supervisors, despite good theoretical understanding of the concepts, had difficulty to relinquish their former work habits and become department managers. After 20 years of experience within a different work model, taking on another role represented a major challenge.

CONCLUSION

Following Eden and Huxham (1996), action-research must aim to bring about real change in an organization. The present intervention certainly did so: within 8 months, production had increased by 40% and workforce productivity by 30%; the company was thus able to become profitable once again.

Arbnor and Bjerke's (1997) also insist that the research must have some implications beyond the situation at hand. Our case study highlights the key success factors of radical change in work reorganization. Three critical elements have to be kept in mind when operating a transition from linear production to workcell production. First of all, communication lines have to be opened with the employees: a communication plan in which employees (and union) are regularly informed of the objectives and results of the reorganization is essential. To that effect, the setting up of a management/union committee helps promoting much faster problem resolution than the institutional path, i.e. collective agreement. Finally, supervisors who see their role transformed from one of coordinator to planner, or even to small business manager, definitely need appropriate training and coaching.

The research has also brought contributions on a theoretical level. It showed that two approaches that hitherto seemed difficult to reconcile could indeed be combined to achieve important productivity gains. Authors such as Coriat (1990), Streeck, Meudlers and Wilkin (1987) identified two main types of flexibility: external flexibility and internal flexibility. For these authors external flexibility comes from externalizing market adjustment problems, including salaries and jobs. This form of reactive flexibility (Coriat, 1990) seeks to reopen collective agreements and/or individual employment contracts, creating psychological pressure on employees, and generating fear among them that they could lose their job. «Considering that is aims to make the employees bear the weight of instability and adjustments, external flexibility results in permanent threat and insecurity for the employees » (Coriat, 1990; p. 259). By contrast, internal flexibility means that the organization will to find and satisfy the conditions of its adaptation to the market. Preferring this form of flexibility, the company will strive to provide its workforce with increased training so it can meet the need for diversification and better market/product fit. Requalifying workers, decentralizing management decisions and increasing worker autonomy constitute the main dimensions of this form of flexibility. The two methods are fundamentally different and seem irreconcilable.

But the present case study in the furniture manufacturing industry demonstrates that these two types of flexibility may coexist. The whole set of conditions for such successful combinations has not been identified here, but it appears that the sequence is important. Applying external flexibility measures first apparently helped free the employees from the fear of further pay or job losses, thereby allowing larger and better investment in internal flexibility steps. Of course successful work organization transformation implies that internal flexibility measures have been carefully planned and followed-up, like it seems to have been done here.

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A MODEL OF DEVELOPMENT FOR REGIONS TOWARDS A POST CONFLICT PERIOD. THE CASE OF THE DEAD SEA AND THE JORDAN VALLEY

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The chief purpose of this paper is to propose the most suitable development model preparing countries to enter in a post conflict period. The FEZ-Cluster hybrid model neutralizes the weaknesses of FEZ and Cluster models and cumulates their advantages, attract investment and generate development based on human capital and knowledge. This hybrid model is able to create new sustainable cross border economic interests between countries in conflict. The researchers checked its feasibility in two regions at the borders of Israel, Palestine, and Jordan; namely, the Dead Sea (chemicals) and the Jordan Valley (agribusiness).

Keywords: Free Economic Zone, cluster, regional development, Israel, Palestine, Jordan

INTRODUCTION

Regional economies have (in recent years/since??) become the core of social life and policy making (Storper,1995). The new regionalism tends to focus on unique, location specific developments (Lagendjik, 1997). Each model of regional development takes advantage of the geographic (Scott, 1988; Storper and Walker, 1989), social (Becattini, 1990), resources (Madani, 1999), technology and market conditions of a region (Porter 1998). The Free Economic Zone (FEZ) creates a new economic entity operating under rules independent of the host country. The main objective is to attract export-oriented foreign manufacturing firms by fiscal and trade incentives. Porter's cluster model (Porter 1990) takes advantage of technology and market conditions and generates a spatial process of vertical and horizontal integration (Porter 1998). Porter places emphasis on market and competition.

The purpose of this research is to determine the most suitable model that is able to generate sustainable economic interests common to the countries of a region in a post conflict period.

The researchers will first discuss the efficiency (examples) of those models in the world. The researchers will check their potential economic impact in two selected regions-sectors, The Dead Sea region (for industry based on raw materials from the Dead Sea) and the Jordan Valley (for out-of- season agricultural products).

REVIEW OF THE LITERATURE ON THE FEZ AND CLUSTER MODELS

Free Economic Zones

The Free Economic Zone (FEZ) is "a geographic economic area in which goods enter duty free for processing and export, and in which investors are offered a variety of incentives (WEPZA)".

FEZs are also called Export Processing Zones (EPZ) or Special Economic Zones (SEZ) in China. They enable less developed countries (LDCs) to benefit from the relocation of the labor-intensive industries (textiles, shoes) and capital intensive industry (steel, petrochemicals) of developed countries that are seeking low cost production and new economies of scale. These changes in the production relations led to the theory of the "New Spatial Division of Labor" (Frober et al, 1977). In the 1950's, many LDCs in Latin America (including Chile, Brazil, Caribbean Islands) established FEZs (Fan Sujie, 1993) while the first FEZs were established in Ireland and Taiwan in the 1960's (McCalla, 1990).

The first four FEZs in China, the Special Economic Zones, were set up in the coastal region of South China, this model spreading from there to the North in the 1980s and to the interior in the 1990s. There are about 125 FEZs on the national level in China today. Product specialization in FEZs is heavily concentrated in labor intensive activities centered on the production of textiles, clothing, electrical and electronic goods, food processing, and metalworking. Such types of activity represent more than 90% of all FEZ output (Burns, 1995). Diversification remains very limited because companies from developed countries adopt de-localization policies for a limited number of manufactured goods.

The ILO (1996) stresses that "a striking feature of FEZs has been their development into mono-cultural industrial estates rather than into well-balanced industrial parks as originally planned."

The creation of induced employment along with the quality of the jobs created constitute the main indicator used to judge the success of an FEZ. Experience shows that even if salaries in FEZs are generally higher than those paid by companies outside the zones, they are generally for jobs requiring low skills and are reserved in the main for a female workforce. Do FEZs generate sustainable economic development in the host region/country?

Empirical studies show the ratio of indirect/direct jobs created varies from 0.25 in the case of Mauritius (ILO 1988a) to 1.4 in Madagascar (Razafindrakoto & Roubaud, 1997) and more than 2 in Honduras. The concept of net exports (exports of finished goods less imports of intermediate goods and materials) provides an indicator of the locally generated value added by an FEZ and of the importance of the backward linkages to the domestic economy. In the Philippines this ratio reached 42% (1994) and only 20% in Bangladesh (1995) (Madani 1999). The Mexican ratio of 22% is similar to Bangladesh (Cling & Letilly, 2001). Kusago and Tzannatos' (1998) study of three Southeast Asian EPZs (Bataan in the Philippines; Masan in Korea; Penang in Malaysia) reaches similar conclusions. The net gain in foreign exchange is significantly reduced by outflows of profits and dividends repatriated by subsidiaries to their parent company; the use of local primary materials remains limited in FEZs; and import duty exemptions on intermediate goods constitute a disincentive to purchases from local suppliers. Countries hosting FEZs expect foreign enterprises to transfer part of their knowledge and technology to local companies, but the transfer of technology is impeded by the following two obstacles:

(1) Most of the employees in the FEZ acquire only the basic skills necessary to perform specific production tasks and in consequence have little value for other sectors of activity, and (2) training is provided to a selected number of employees, and their mobility takes place within the FEZ (ILO, 1998b)

Although developing countries consider FEZs to be a central instrument of development policy, FEZs in the emerging Asian countries have played only a modest role in development. FEZs in Korea and Taiwan were considered as only one element among many adopted in an export-led growth strategy. Export oriented industrial activity has never represented more than 3-4% of manufactured exports in the case of Korea and 8-9% in the case of Taiwan (Basile & Germidis, 1984). FEZs are now declining in the four East Asian "tigers" (Korea, Hong Kong, Singapore and Taiwan).

In Singapore almost all the custom duties were suppressed in 1994, and, moreover, fiscal advantages granted to FEZs have disappeared. Employment in the free zone of Masan (Korea) has fallen since the end of the 1980's from 14000 to 2000.

The Middle East experienced a new kind of FEZ called Qualified Industrial Zones (QIZ). The US-Israel Implementation Act defines QIZ (www.customs.ustreas.gov) as the territory of Israel and Jordan or Israel and Egypt designated locally as an enclave where merchandise may enter without payment of duty or excise taxes. The QIZ program allows the Jordanian kingdoms' business community to export to the US free of duties and restrictions, eliminating tariffs and other commercial barriers, providing the sum of the cost or value of material produced in the West Bank, Gaza Strip, in other QIZs, or in Israel, plus, the direct costs of processing operations is not less than 35% of the price paid by the US buyer.

Job creation was a central objective. In 2001, 70% of the employees in the QIZ enclave were Jordanian. In 2003 only 57% of the 26000 employees were Jordanian (Kardoosh & El Hour, 2004). The official explanation for this situation is the limited number of skilled employees in textiles activities in Jordan. Skilled development is practically nonexistent in QIZs, and consequently, this model does not provide the basis for upward mobility within the enterprise. Also, QIZs have not produced backward linkage to any significant extent. The QIZ sector remains heavily dependent on importing intermediate goods, materials, and accessories. Ninety to ninety-five per cent of fabrics used in QIZ production are imported. Companies operating in a QIZ are labor intensive, low-tech assembly firms, with scant access to advanced technology. Thus, transfer of technology is practically confined to the labor aspect alone.

FEZ model improves the employment situation in developing countries by providing low cost unskilled jobs. But it contributes very little to the economic development of the host region/country. FEZ creates little synergy between firms located in the free zone and the existing business infrastructure in the local community. The conclusion is that FEZ cannot create sustainable common economic interests for a region in a post conflict period.

The Porter cluster model

Firms in the Porter cluster model (1998) gain competitive strength because of better access to specialized and experienced employees, suppliers, specialized information, and public goods, and by the motivating forces of local competition and customer demand (Rosenfeld 1996; Enright 2000; Saxenian 1994).

Christensen, McIntyre, and Pikhoid (2002), in their research on successful cluster development practices in the United States and Italy, emphasize the business generator aspect of Porter's cluster model, describing it as a "geographic concentration of an array of linked,

competitive firms that either have close buy-sell relationships, utilize common technologies, share customers, or share a labor pool that provides them with a competitive advantage.”

The cluster model gains competitive strength due to its better access to trained and experienced employees, suppliers, specialized information and public goods, as well as from motivating forces of local competition and customer demand (Rosenfeld, 1996; Enright, 2000; Saxenian, 1994). In their research on successful cluster development practices in the United States and Italy, Christensen, McIntyre and Pikhoid (2002) emphasize the business generator aspect of the cluster. Lissoni (2001) argues that authorities and institutions should facilitate collaboration and networking, but Porter does not endorse this view on the grounds that such networking would lead to a reduction in competition.

An example of bottom-up development is the Silicon Valley, the first United States cluster model, which was initiated by private parties. Frederick Terman, Professor and Provost of Stanford University, proposed the leasing of Stanford's lands for use as an office park, the Stanford Industrial Park (SIP). Leases were limited to high-tech companies. Its first tenant was Varian Associates, founded by Stanford alumni in the 1930s to build military radar components. Terman also found venture capital for civilian technology startups. One of the major success stories was Hewlett Packard, which was founded by Stanford graduates William Hewlett and David Packard.

Networks were generated autonomously in both regions, Silicon Valley and SIP (Saxenian, 1994; Segel, 1985).

In most European Union (EU) countries, the clustering process was the initiative of governments. The EU Expert Group's final report Enterprise Clusters and Networks surveyed 59 traditional clusters and 25 science-based clusters (European Commission, 2007). According to the report, in the member states, policies towards cluster development are generally issued by national governments with the co-operation of regional or local governments.

National authorities focus on designing and coordinating cluster policies to create the general framework conditions and developing R&D programmes. In certain countries such as Belgium and Spain, cluster policy is strictly a regional government initiative.

In Germany projects such as EXIST or BioRegio are the result of the federal government's cluster policy, a top-down approach. (Colovic-Lamotte & Tayanagi, 2004). Regional governments have been required to share with the federal government the provision of financial support to spinoff companies from universities.

Ireland's Galway software cluster (Green, 2000) is also a top-down initiative of the national government and the regional authorities (Galway). Its origin is in the development of the software industry around multinational company axes such as Digital Electronics Corporation (DEC), Nortel, and Compaq initiated by the government. Those large producers of computers and electronic subsystems are large buyers of electronic components, software and software packaging, and other subcontracting services from local SMEs.

The Japanese government has been implementing new policies such as the Industrial Cluster plan (METI) and the Intellectual Cluster Plan (MEXT) since 2001 (Colovic-Lamotte & Tayanagi, 2004). METI designated nineteen regional cluster projects in metal machine parts and airplane parts (Higashi Osaka), original equipment manufacturing and environment industry (Hitachi-city), and also in ceramics and metal cutleries. MEXT has mainly worked to expand the budget for universities, aimed at improving technology transfer and patent strategy.

Finland's government encourages the development of industrial clusters. The well known cluster in Finland, called "Networking," at Turku and Oulu is in telecommunication and involves companies such as Nokia and ABB (TEKES, 2005).

The cluster model requires strong competitive advantage in one or more of the following inputs or specialization: valuated raw material, dynamic industrial specialization or, the existence of big companies with a strong networking in knowledge and trade. Porter proposed the implementation of those principles in Luxemburg (2005 a), Chile (2005 b) and Ireland (2006). Clusters based on similar principles in a region in conflict may be the economic generator of a future political solution.

The Hybrid FEZ – Cluster private cross border model

FEZ provides not only the required economic conditions required in order to attract foreign investment, but also an economic alternative to a territorial conflict. FEZ is an independent entity, which can neutralize eventual frictions between countries, if it is managed by a third side, according to economic principles approved by all.

The transfer of the geographic location of the FEZ to a neutral independent third economic party is implemented in several regions. Private FEZ, cross border FEZ exist and operate successfully in and between different countries.

Private FEZ:

The FEZ at El Rosario, La Paz, located 42 Km south to Pedegral, San Salvador, is owned by a private partnership , Grupo Artistas (<http://www.elpedregalsal.com>), with 20 years experience in business. In 1992 this partnership initiated the creation of two other FEZ (El Progreso, American Park) <http://www.americanpark.com.sv/elsalvador.asp>

The first private FEZ has been created in Greece by two private companies AEGEK and METON (<http://www.ase.gr>) in the region of Aetolia-Acarmania (Astakos West Greece) (126 Million Euros) In 2003 the Syrian parliament approved a law allowing the creation of private FEZ. (The Syrian Report, 2003 <http://www.ameinfo.com/16199.html>)

This law gives to GOFZ and to the local authorities of the FEZ the right to transfer the responsibility of the FEZ location to private investors.

Cross border FEZ:

Cross border FEZ between countries operate in South East Asia (Tang Min, 1993), Pan Xiaomin, 1997) and Europe (European Commission, 2001). In Asia the most developed cross border FEZ are the industrial triangle between South Korea, Japan China, around Tumen River

(Li Qing, 1997), the Mekong river region between Laos, Cambodia, Thailand and Myanmar and the economic triangle between Taiwan and South China (Xiangming Chen, 1995).

In Europe, The most efficient cross border FEZ is the Maas Rhein triangle between Maastricht region (The Netherlands), Liège region (Belgium) and Aachen region (Germany) (<http://www.euregio-mr.org>).

Different models of private FEZ and cross border industrial and economic zones exist in several regions and countries. It may be feasible also in the Middle East.

The Cluster model developed around a strong local technology based competitive advantage will insure in the framework of a FEZ model the attraction of investment in human capital and knowledge and not only in low cost manpower.

The hybrid FEZ-Cluster private cross border model takes advantage of the positive impact of both models and creates the required conditions for a cross border joint economic development. Its independent economic status neutralizes potential frictions between countries. The potential investors have the benefit of economic incentives and political stability.

HYBRID FEZ-CLUSTER IN THE DEAD SEA REGION AND THE JORDAN VALLEY

The researchers argue that the region at the border between, Israeli, Jordan and the Palestinian Authorities, around the Jordan River and the Dead Sea, meets the relevant conditions for the implementation of a private cross border hybrid FEZ-Cluster model, which, in a post conflict period, can provide for sustainable economic growth. In order to check the feasibility of this model we have selected two locations with a common local distinctive competence from both sides of the border:

- The Dead Sea region: The countries share the raw material from the Dead Sea and have developed parallel and competing chemical and cosmetic industries.
- The Jordan Valley region: On both sides of the Jordan river, the winter climate enables production and export of off-season produce to Europe.

Methodology, Interviews, and Collection of data

The researchers have interviewed representatives of the main “related and supporting industries” manufacturers, growers and providers of services. They were asked to respond to the following questions:

- What are your distinctive competences?
- What products do you produce and for which markets?
- What impact would the establishment of a hybrid FEZ-Cluster have on your activities?
- What impact would the establishment of a hybrid FEZ-Cluster have on the region?

In the Dead Sea region, on the Palestinian-Jordanian side of the border, the researchers interviewed the following main firms:

ACL Arab Chemical Trust Ltd

Crystal for Dead Sea Products (Dead Sea products)

Al Zara (Cosmetics)

Jordan Co for Dead Sea products

Three small cosmetics companies

On the Jordanian side of the Jordan Valley the researchers interviewed the following Palestinian-Jordanian growers:

Large-medium

Walid Al Natour (Fruits)

Fahmi Al-Saify (Fruits)

Zuhail Abdel Rahem (Fruits and Vegetables)

Small

Majed Al Khateeb

Kashkol (trading) vegetables)

Ahmad Abdel Hakim (vegetables)

Mohd Aweidat (vegetables)

Ali Said Khawajeh (vegetables)

Haddad Warehouse for agricultural services

On the Israeli and Palestinian side of the Dead Sea Region the researchers interviewed or collected data on the following main firms:

Dead Sea works

Dead Sea Bromine

Periclase

Bromine Compounds

Ahava (the researchers have collected relevant data from secondary sources)

There are no for the moment Palestinian chemical industries

On the Israeli-Palestinian side of the Jordan Valley we interviewed or collected data from the following main companies:

Argaman grapes and dates

Bkaot grapes, dates and citrus

Gilgal: nursery, aquarium ornamental fish.

Gitit dates

Massua dates, citrus, vegetables, flowers

Naama fresh spices

Naaran manufacturers of plastic wrap and PVC

Pazael grapes, dates, vegetables, flowers

Tomer dates, fresh spices, grapes, vegetables

Yitav vegetables, mainly red peppers

The researchers also interviewed national and regional authorities and professional associations in order to answer the following questions:

- What are the distinctive competences of the region?
- What economic sectors exist in the region?
- What impact would the establishment of a hybrid FEZ-Cluster have on the economic activities of the region?

The researchers interviewed the Jordanian Ministry of Planning, the Jordanian Ministry of Industry, Jordanian Investment Promotion Board, and National Resources Authority, the Israeli Jordan Valley Agricultural Commission and Israeli Jordan Valley and the Economic Development Company.

Dead Sea Hybrid FEZ – Cluster

The researchers present below the results of the interviews comparing the situation prior to establishment of the hybrid FEZ-Cluster and the situation expected to result from implementation of the hybrid FEZ-Cluster.

Situation prior to establishment of the Hybrid FEZ-Cluster: (see Figure 1, 2)

- The three basic industries are bromine, potash and magnesium industries produced by two large trusts ICL (Israel Chemical Ltd) and APC (Arab Potash Company). The ICL Group accounts for 11% of the international trade of potash and ACL, for 6%. The ICL group accounts for one third of the world production of bromine.
- The related industries are as follows:
 - Magnesium oxide for refractory applications (bricks) industry Periclase (Israel) and JordMag (Jordan) Both companies have many difficulties competing with the Chinese production which has the benefit of low cost of manpower. Jormag still continues to produce magnesium oxide. Periclase now produces magnesium specialties for food, pharmaceuticals, and fire retardant applications
 - Fertilizers are produced by ICL Fertilizers (Israel) and two Jordanian joint ventures: Jordan-Nippon Fertilizers and Kemira (JV with Kemira, the Finnish partner)

- Bromine Compounds (Israel) produces a flame retardant compound for computers, semiconductors, home appliances, construction and transportation, components of the clear bride fluid used in gas and oil fluids applications, organic bromine compounds as intermediates for the synthesis of pharmaceuticals and biocides. Jordan Bromine company started to produce only in 2003 a smaller range of products. It is a joint venture with the US and world leading company Albermale.
- ICL Metallurgy (Israel) produces magnesium alloys as a joint venture with Volkswagen. Chinese competition cut the prices and limits the expansion of ICL Metallurgy. China has 70% of the market and ICL Metallurgy 7% only. Jordan is not involved in this field.
 - Cosmetics industries based on the Carnallite and the mud from the Dead Sea: 43 Jordanian firms and 33 Israeli firms produce cosmetics based on Dead Sea raw material. Only one firm, Ahava, has succeeded in growing and now exports around 30 million \$US worth of products annually.

Figure 1 - Dead Sea Industry (Israel) prior to the Hybrid FEZ-Cluster

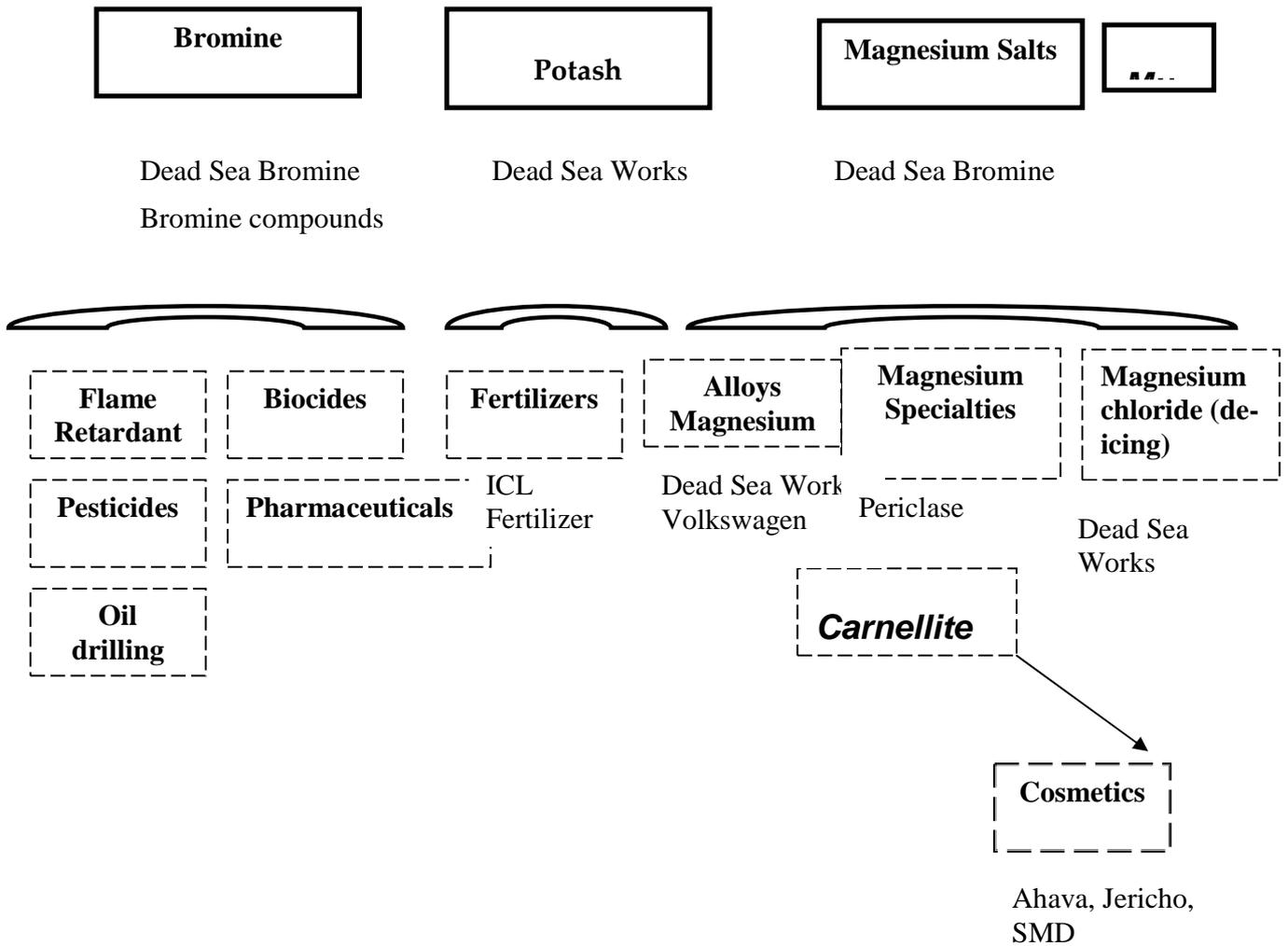
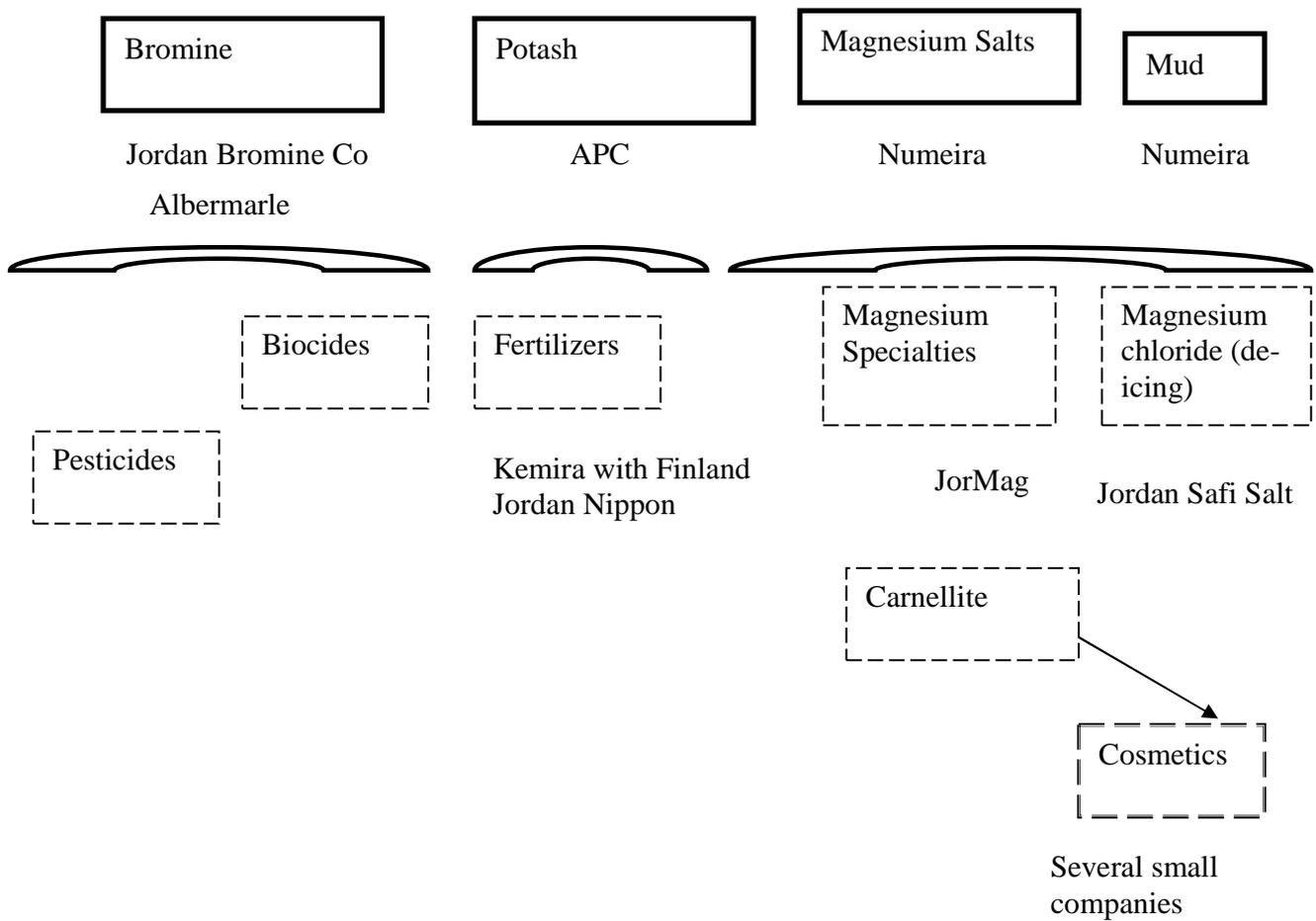


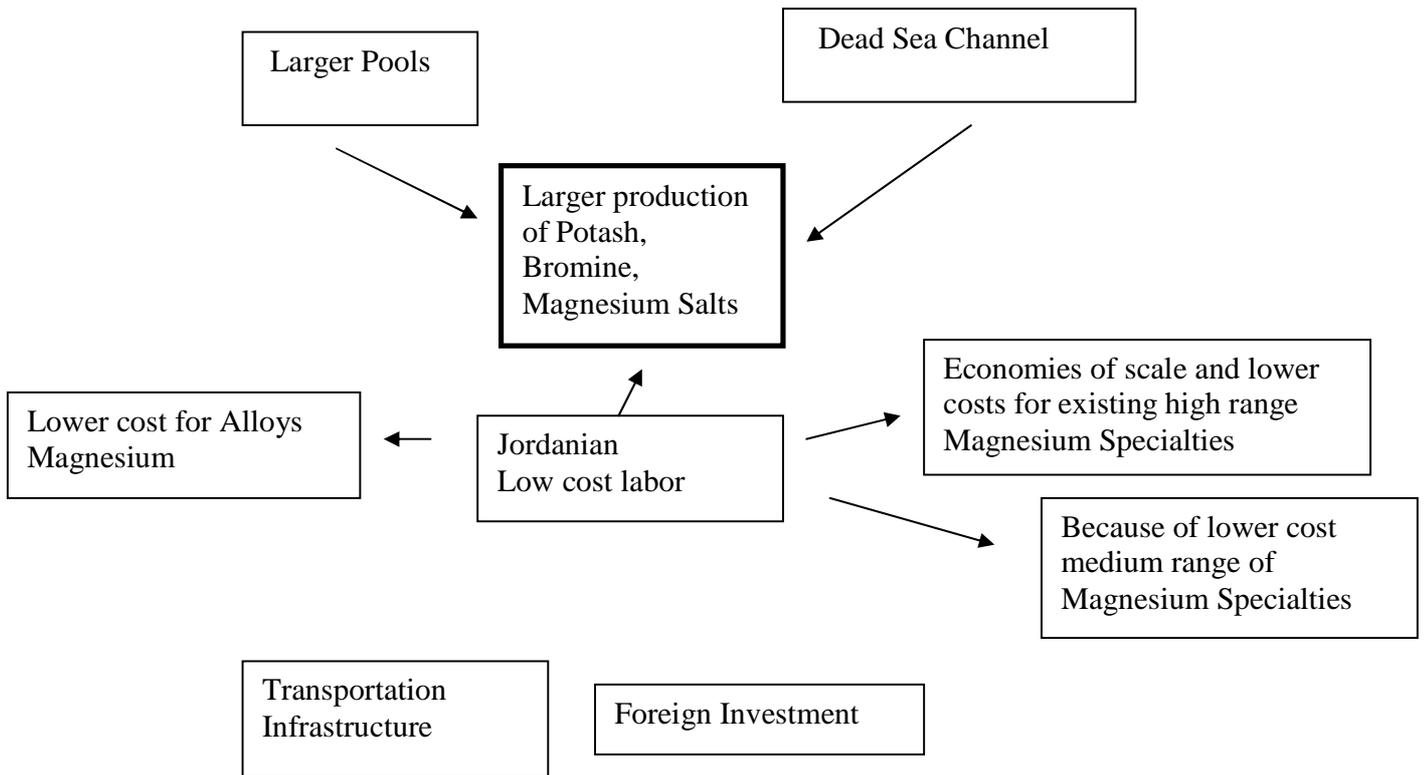
Figure 2 - Dead Sea Industry (Jordan) prior to the Hybrid FEZ-Cluster in the Jordan



Arguments for the Hybrid FEZ-Cluster model (see figure 3).

- The management of the FEZ-Cluster by a third party will help neutralize the effects of the existing embargo of the Jordanian professional associations against Israel.
- The elimination of the physical border will allow the enlargement of the pools and the quantity of raw material produced.
- The basic bottleneck of the industrial development of the Dead Sea region is the low level of the Dead Sea. Only a joint project creating a physical link between the Mediterranean Sea or the Red Sea and the Dead Sea, will improve the capacity of production of raw material from the Dead Sea.
- Lower cost of labor and energy from the Jordanian side will open the middle range of the magnesium specialties market (animal feeding) and will improve the competitive position of the magnesium oxide based industry against Chinese competition.
- Bromine compounds, if produced in larger quantities in autonomous production units, can benefit from economies of scale.
- The production of magnesium alloys (metal magnesium) will have the benefit of lower costs of manpower and energy and will be able to compete with Chinese companies.

Figure 3 - Dead Sea Industry with Hybrid FEZ-Cluster



- Exported raw material and products from the Dead Sea requires efficient transportation infrastructure. Railway infrastructure to the main ports on the Red Sea (Aqaba, Eilat) and on the Mediterranean Sea (mainly Ashdod), and the possibility of using any port will be cost effective.
- The possibility of using any port, train or road in Israel or Jordan, will open new markets to the existing and future firms
- The Hybrid FEZ-Cluster will raise the level of confidence of foreign investors for investing in infrastructure and companies

The Dead Sea Cluster would generate knowledge-based industries dependent upon distinctive local competences of the region.

Jordan Valley: Out of Season Agriculture – Hybrid FEZ-Cluster

Situation prior to the Hybrid FEZ-Cluster (Figure 4, 5, 6)

- Israeli growers produce: 110 ha dates, 90 ha vegetables, field crops and herbs, 40 ha grapes, 10ha fruits. The total Israeli production is valued at 100 Million US\$.
- The Israeli growers use refrigeration services for freezing dates outside the Jordan Valley, close to the ports
- The Israeli growers use the services of agricultural trading companies which have their own transportation services abroad
- Palestinian-Jordanian growers produce: 75 ha citrus, 70 ha vegetables and field crops and 7 ha of other crops in the north and in the south of the Jordan Valley. In the center the authorities plan to build an infrastructure (refrigeration...), supporting the production of agricultural products mainly for exports. The authorities intend to lease land for a price of \$1000 per dunam per year, twice the price of the land in the North and the South.

Figure 4: Israeli Agricultural Cluster in the Jordan Valley

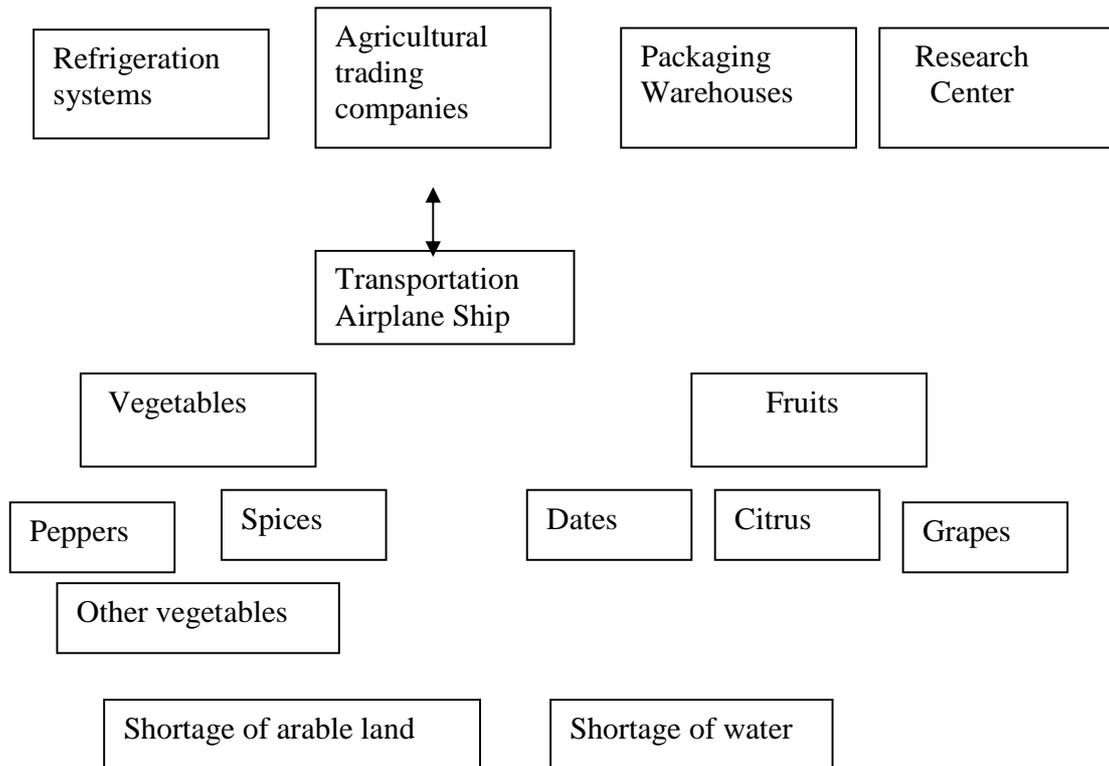
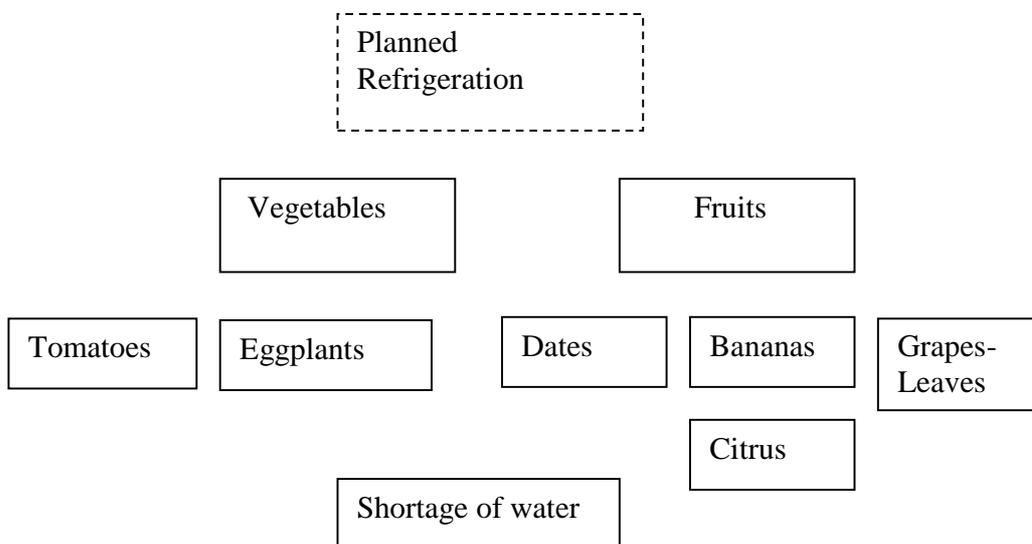


Figure 5 - Jordanian Agricultural Cluster in the Jordan Valley



Palestinian growers produce similar products as Jordanian growers. There are no available statistics about Palestinian production in the region.

- Israel and Jordan, produce a similar quantity of vegetables - around 1250 tons, but in Israel the productivity (quantity/ha) is double and 20 times higher in value (1000 US\$/farmer). Most of the Israeli production (mainly red peppers, dates and spices) is exported to Europe, while the Jordanian production (mainly citrus, banana, tomatoes eggplants, grape leaves) is sold in the local market.

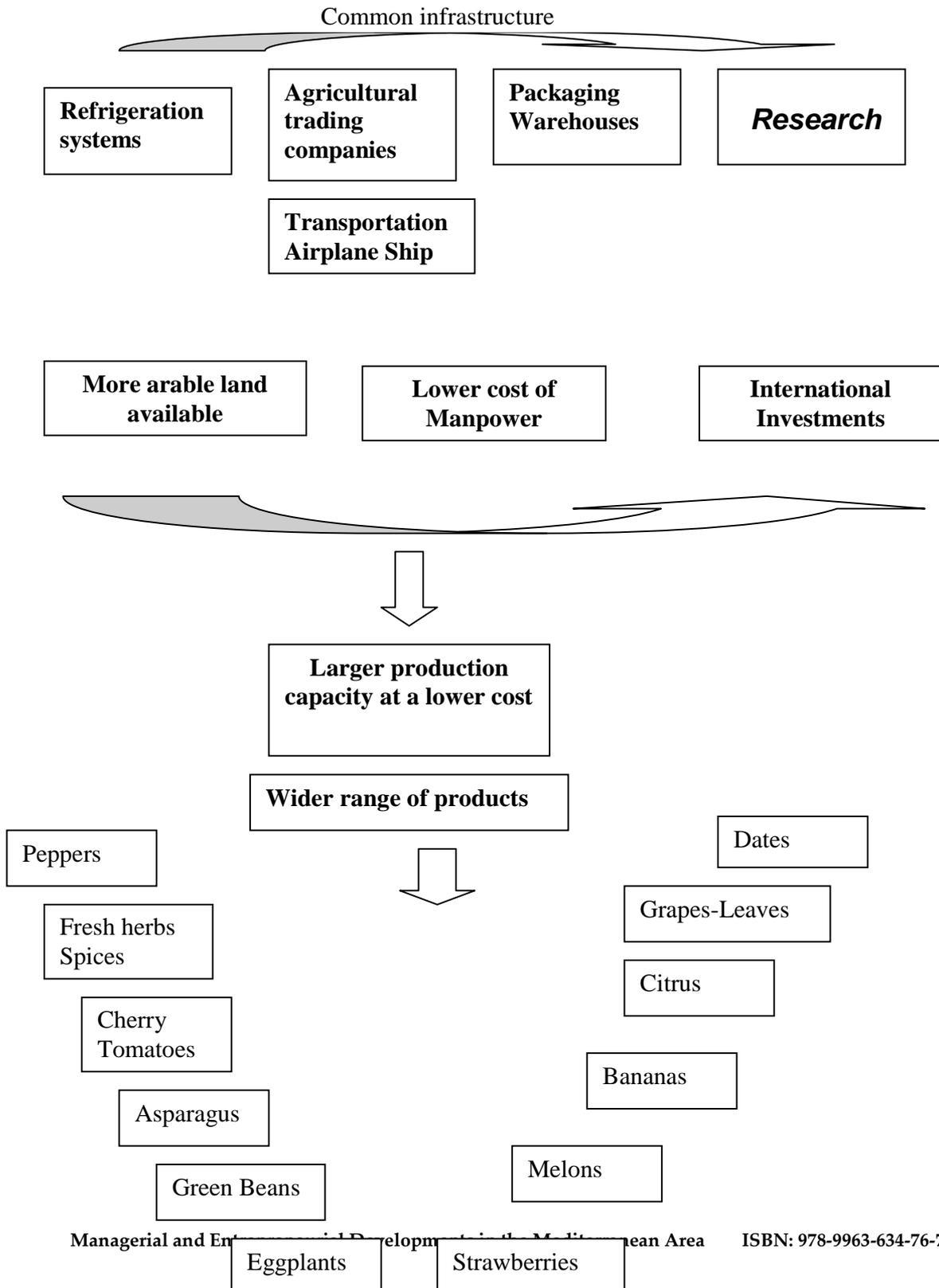
The lack of water is a common disadvantage in Jordan. There is also a lack of capital and technology in inputs, packaging, market channels, and a lack of awareness of prices, demand, and knowledge required to deliver high quality products (Agriculture Cluster in the Jordan Valley, 2000).

Israeli growers benefit from high technologies and updated knowledge from the international markets through several Israeli exports trading companies. The main bottlenecks, beyond water, is a shortage of arable land and of low cost manpower. . Jordan.

Hybrid FEZ-Cluster impact (Figure 6)

- In the framework of the FEZ-Cluster, the Dead Sea-Red Sea channel could be built as proposed by the Jordan Valley Authority in order to solve the problem of the lack of water.

Figure 6 - Hybrid FEZ-Cluster in the Jordan Valley



- The management of the model of a common FEZ-Cluster by a third party solves the problem of the opposition of the Jordanian professional associations to any cooperation with Israeli partners.
- The management of the hybrid FEZ-Cluster a third party and approved by Palestinian, Jordanian and Israelis parties could solve the political problem of the border, which is not recognized by the Palestinians and the Jordanians.
- Jordanian products have access to the Israeli Mediterranean ports
- Jordanian weaknesses in technology, market channels, and related and supporting industries will be compensated by the experience of international and Israeli business units.
- The Jordanian farmers, traders and providers of services emphasize the economies of scale, of scope
- The FEZ – Cluster will attract international investments.
- The production of strawberries, melons, green beans, peas, asparagus, cherry tomatoes, and fresh herbs proposed by the French delegation (MREA, 2002) will be feasible

CONCLUSION

A region in a post conflict period requires the fulfillment of compulsory preliminary conditions in order to be ready to define common economic development involving former enemies as the main objective. The FEZ provides such conditions by neutralizing the concept of political borders: the FEZ location transferred to a neutral economic organization, which does not belong to any side and so any side, anyone, can develop economic activity there. A cluster model inside the FEZ improves the chances of the region to have sustainable growth and to attract international investments. The hybrid FEZ-Cluster is not only based on low cost manpower, but also on local distinctive competences generating horizontal and vertical synergies. The researchers have proved that such hybrid model, implemented in the Dead Sea region and the Jordan Valley is able to generate not only economies of scale and more added value to existing businesses but also to generate new businesses.

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THE OPEN INNOVATION STRATEGY IN THE MARKET LIFE CYCLE

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We argue and prove that the intensive use of knowledge from external sources, the origin of open innovation, is positively correlated with business success of high-tech products. We also prove that high-tech products based mainly on the intensive use of knowledge from internal sources, closed innovation, fail. We argue and prove that open innovation in products and in embedded technology in products, is critical in order to succeed in a market at its emerging and growth phase. The empirical research was carried out on a sample of 65 high-tech products, selected from Israeli firms specialized in electronics.

Keywords - Open innovation strategy, competitive advantage, market, technology, manufacturing, innovation, product life cycle, market life cycle, disruptive innovation, discontinuous innovation

INTRODUCTION

Pavitt (2003) argues that business firms remain incapable of accurately predicting the technical and commercial outcome of their own innovative activities. Even if they try to do it, according to Chesbrough (2006), "most innovations fail". Nonetheless, he considers innovation a compulsory activity, because "companies that don't innovate, die" (Chesbrough, 2006). Arthur D. Little (2005) confirms the importance of innovation for the business sector. From 800 companies operating in different business sectors in the United States, Canada, Latin America, Europe and the Asia-Pacific region, the top innovators have 2.5 times higher sales of new products and get more than ten times higher returns from their innovation investments.

The different innovation strategies proposed by academic researches and their business impact are discussed in this paper. We argue that an innovation strategy focused mainly on closed/continuous innovation and in-depth specialization is a high-risk strategy. We prove that business success depends mainly on the intensive use of external sources of knowledge, the origin of open innovation.

INNOVATION STRATEGY IN THE LITERATURE

Schumpeter (1934) was the first researcher to realize that, at the macro-economic level, the development and diffusion of new technologies formed the source of economic progress. Many other researchers followed: Gruber (1967), Gruber and Vernon (1970), Jones (1966), Samuelson (1965), Hirsh and Bijaoui (1985) and Utterback et al (1978) proved the positive correlation between research and development (R&D) and economic growth.

The innovation process has traditionally been viewed as a simple linear sequence process with emphasis on R&D and in which "the market is a recipient of the fruits of R&D" (Rothwell,

2002). The purpose of R&D for the neo-classical school was not new products (Arrow, 1962; Nelson, 1959) but technological innovation. The linear "Technology Push" model, dominated industrial policy after the Second World War until the mid-1960s. In the early 1970s, innovation became linked to customer needs in the market. The source of innovation is no longer the R&D department only, but the marketplace also. Von Hippel (1978) found that the market is the most influential function in the innovation process. In the project NewProd, Cooper and Kleinschmidt (1990) and Cooper (1994, 1999) also found that strong market orientation is one of the basic reasons for success. This led to the second linear model, the "Market-Pull" model. In the "Technology Push" model, the starting point of the innovation process is technology and in the marketing pull model, the market. In the "Simultaneous Coupling Model" of innovation (Galbraith, 1982), neither technology nor the market leads the innovation process. The simultaneous activities of R&D, manufacturing ("Technology Push") and marketing ("Marketing Pull") generate the innovation process. Each side provides its own expertise and the management of the organization leads the whole innovation process.

In the mid-1980s, the novel product organization of Japanese firms led to the "Network" innovation model (Imai *et al.*, 1985). In this model, the different in-house departments interact with each other rather than work sequentially. The objective is to reduce the product "lead-time cycle" and costs. Innovation is the result of the co-operation between the functions (R&D, manufacturing and marketing) and two external flows of knowledge, one linking the external scientific and technological environment to the firm through R&D, and one linking the external marketplace environment to the firm through marketing. (Rothwell, 1992).

In the 1990s, the focus moved from network innovation to "System Innovation" (Lundvall, 1992; Edquist, 1997), a multi-actor process of accumulating know-how, which requires high levels of integration at both intra- and extra-firm levels. The external network is based on current, but also future/potential customers, suppliers, competitors, science and technological infrastructure and service providers. By interacting with the internal sources of knowledge, the external sources of knowledge improve the innovative capabilities of the firm and its capability to enter new markets in order to reach higher returns. (Rothwell, 2002). The key aspects of this model of innovation are integration, flexibility, networking and parallel knowledge processing.

Rothwell underlines the following strategy elements: the time-based strategy, the corporate flexibility and responsiveness, the customer focus, the quality control, the integration with primary suppliers and the horizontal technological and electronic data-processing strategy.

Tidd *et al.* (2001) emphasizes the central role of the strategic approach, the supportive organizational context, the effective implementation mechanisms and the effective external linkages in the successful management of the network innovation model. Any function – R&D, marketing, manufacturing – in this model is able to innovate and lead.

Ritter and Gemunden (2002) use the external environment composition defined by Gemunden *et al.* (1992) – the administration, the suppliers and co suppliers, research and training, the competitors, the consultants, the distributors and buyers – to check if these sources of knowledge can improve the positive impact of technology capability on business results. They find a strong positive correlation with business results. Thomke (2001) and Von Hippel (1978) reach similar conclusions.

Leonard (2002) considers an additional player in the external environment – “other non-competitor companies”. These companies do not compete today, but could be future competitors if the firm decides in the future to enter their market. Leonard refers, in this regard, to Miller’s and Morris’ (1999) “discontinuous innovation” in market knowledge, Christensen’s (1999) and Danneels’ (2004) “disruptive innovation”, and Chesbrough’s (2003, 2006) “open innovation”. These models explain how technological and/or marketing myopia based on continuous/closed innovation, opens business opportunities to newcomers able to generate disruptive/open innovation. Christensen draws attention to cases where market myopia is the effective trigger point, such as Seagate-Conner Peripherals. Seagate, a company specialized in hard disk drivers, decided not to develop and produce a 3½-inch hard disk that was assumed, too small for PCs, not only in size, but also in capacity. In response, employees from Seagate established Conner and created the laptop market, with the 3½-inch disc drive. Christensen concluded that “the track record of existing players to ride both horses is poor, but they face the need to deal with this innovator’s dilemma. Either they surrender the ground to newcomers or they spin off new ventures and become newcomers themselves.”

Open/disruptive innovation changes the bases of competition (Danneels, 2004). Its choice and efficiency depend on “marketing/technological competence”, the ability of a firm to build new technological competences and/or to identify and build relations with new customers.

The growing mobility of highly experienced and skilled people and the wider diffusion of knowledge created new alternatives to firms’ internal knowledge. Open innovation (Chesbrough, 2003, 2006), similar to discontinuous (Miller, 1999) or disruptive innovation (Christensen, 1999), combines internal and external ideas into architecture and systems.

Open Innovation is “the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and to expand the markets for external use of innovation, respectively” (Chesbrough et al, 2006).

De Jong *et al.* (2008) distinguish five types of behaviour that capture most of what enterprises do, when they generate open innovation: networking, collaboration, corporate entrepreneurship, intellectual property management and R&D.

The following external conditions are identified by De Jong (2008), representing the key sources of capital necessary for innovation: large stock of basic knowledge, highly-educated and a mobile labour force, and good access to finance.

Nokia uses an open innovation strategy (Dittrich and Duyesters, 2007) in developing new products and services and in setting technology standards for current and future use of mobile communication applications.

In 1997–2002, it had 48 strategic alliance agreements, of which 25 were joint development agreements, 16 co-production contracts, six joint ventures and one standardization consortium. Nokia refers to as “context”, are usually outsourced. This is the case, for instance, with network elements. Nokia buys them from SCI, Flextronics Finland and Elcoteq Networks Oyj, since they can produce them much more efficiently and there are no economies of scale for Nokia in producing them internally.

Chesbrough classifies industries in three innovation oriented categories:

- industries that have to operate under open innovation such as the Hollywood film industry;
- those in transition between closed/continuous and open innovation, such as Healthcare, banking and computers;
- those that continue to operate under closed/continuous innovation, such as nuclear reactors and mainframe computers.

The trend in many industries towards open innovation processes become more important in recent years, both in large enterprises (OECD, 2008) and in SMEs (De Jong, 2006).

THE INNOVATION MAP – ILLUSTRATIVE CASES

The innovation map presents the different available options of closed (c) or open (o) innovation in the market (Mc, Mo), in embedded technology in products (Tc, To), in the manufacturing process (Mfc, Mfo) and in products (Po, Pc).

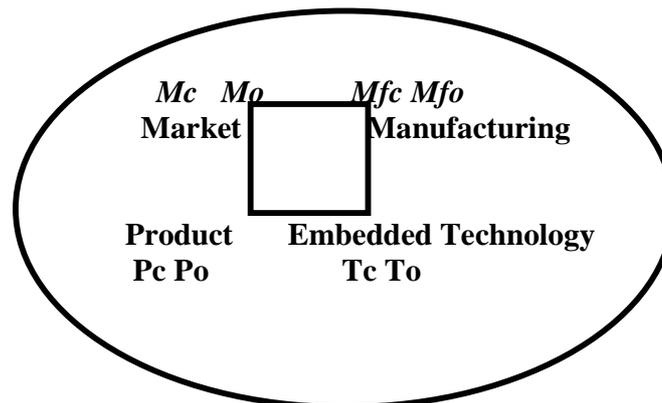


Figure 1 - The Innovation Map

The cases below illustrate the major options of open innovation.

Open Innovation in product and in embedded technology in products; closed innovation in the market – the compact disk and Nike's sport shoes

The compact disk

Improvement of competitive advantage may require open innovation in products, a totally new product concept. In 1982, the CD-DA (compact disk-digital audio) was jointly introduced to the consumer market by Philips and Sony. The open innovation in products – small and portable, based on an open innovation in embedded technology in products, laser technology, stereo audio signals in digital form – responded to the need in the market for improved music quality and quantity, a closed innovation in the market.

Sport shoes – the case of Nike

In 1964, Nike founders Phil Knight and Bill Bowerman detected a need in the United States market for lighter, more resistant athletic shoes for runners (improved added value, a closed innovation in the market, to compete with German brands Adidas and Puma. They decided to develop a running shoe style with a nylon upper and have it manufactured through Japan's Onitsuka Tiger. This new concept of running shoe, open innovation in products, provided the light weight and durability demanded by professional runners.

Nike improved its sports shoes through open innovation in embedded technology in products, including a new patented Air-Sole cushioning technology in "Tailwind". Max Air, engineered to handle impact, Zoom Air, extra light and responsive, and Air Shock, with a slower rate of impact loading, were later embedded technologies in Nike's sport shoes.

Open innovation in products, in embedded technology in products and in the market – the microwave and the laser

The microwave oven

In 1946, Dr. Percy LeBaron Spencer of Raytheon Corporation (www.amana.com) decided to improve radar performance by developing an open innovation in embedded technology in products, microwave technology, and to take advantage of competitors.

Raytheon Corporation decided to embed the microwave technology into the microwave oven, an open innovation in products, provided to an assumed need in the market of quicker cooking process, a closed innovation in the market. In 1947, the first commercial microwave oven hit the market weighting 750 lb, or 340 kg, at a unit cost of US\$5,000. The heavy weight and high price obviously did not suit the needs of private and professional customers (restaurants). Amana, a specialist in electric appliances that was acquired by Raytheon, developed a lighter and cheaper microwave oven and introduced it in the oven market as a quicker cooking oven, a closed innovation in the market. In fact, the microwave oven was not a closed innovation in the oven market, but fulfilled the new need for warming/de freezing/no-cooking pre-prepared food, a new market, an open innovation in the market, The microwave oven is used more often to warm a pizza or a pre-prepared meal than to cook more quickly,

The laser

A powerful tool for identifying the characteristics of a wide variety of molecules emerged from the work of Arthur L. Schawlow and Charles H. Townes in microwave spectroscopy (Luccent Technologies, 1998). Neither of these researchers was planning on inventing a device – the laser – that would revolutionize a number of industries, from communications to medicine. They had something more straightforward in mind: developing a device to help them to analyse molecular structures. Schawlow recalled the unanticipated invention, "We thought it might have some communications and scientific uses, but we had no application in mind."

Schawlow's and Townes' technological innovation aimed at developing an instrument for a small market, the analysis of molecular structures, using a developed product – the laser.

Bell Labs decided to hire them to develop laser technology as an embedded technology in telecommunication systems, an open innovation in embedded technology in products improving the fulfillment of quicker and more intensive telecommunication needs, which is a closed innovation in the market.

Open innovation in manufacturing technology

Benetton used computerized automatic design (CAD), manufacturing (CAM) as an open innovation in manufacturing technology, in order to improve its competitive advantage by reducing cost and time to market.

These new technologies allowed open innovation in products, a wider scope of products, design and colors.

Open Innovation Strategy and the Product/Market Life Cycle

Vernon (1966) is one of the first researchers to hypothesize a natural evolution of industry from innovation in the domestic market to growth in the international market. Based on his product life cycle (PLC) theory, he argued that United States companies would be better placed to develop new innovative products for a relatively high-income consumer market at the "early stage" of the PLC.

Having exhausted its market power domestically, the firms would start exporting the innovation to exploit the competitive advantage of their product in the international market. At this "growth stage" of the PLC, products are highly differentiated.

Finally, as product characteristics become more standardized and a dominant design develops, more firms enter into production and competition, and focus shifts to manufacturing efficiency rather than developing new product characteristics. This is the "mature" stage. Vernon's PLC can be also defined as the Market Life Cycle (MLC). At the early stage, the innovative firms create a new market, the emerging phase. The firms start to export and the market entered its growth phase. More firms enter in production and competition, and the market enters in its mature phase.

Klepper (1996) shows that open innovation in products, and in embedded technology in products, dominates the early stage of the product life cycle, while open innovation in manufacturing enters in the mature stage, when production volume have picked up and competition is strong.

Hirsch (1967) argues that, at the early stage, embedded technology in products, frequently change, Mainly SME's enter the market at that phase. Large firms don't take so high risks. Competitive technologies enter the emerging market and try to propose better solutions. Firms must therefore use new technological knowledge, external sources of knowledge, in order to compete. According to Hirsch, at the growth stage, embedded technology changes a little, but manufacturing technology is the focus of innovation, because large firms enter the market, acquire SME's or their knowledge and improve economies of scale.

At the mature stage, the innovation in manufacturing is expected periodically in order to allow cost improvement and differentiation.

Christensen (1999) argues also that, at the emerging phase of a market, i.e. functionality, disruptive/open innovation in products drives the market. At the growth phase, i.e. reliability, continuous/closed innovation in products, is requested. In the mature phase, the requested convenience, demands capabilities of disruptive/ open innovation in manufacturing technology in order to be able to reach economies of scale and scope. Open innovation in products and in embedded technology in products is, according to Vernon (1966), Hirsch (1967), Klepper (1996) and Christensen (1999) – a compulsory condition in order to succeed at the emerging phase of a market (Figure 2). At the growth phase, they emphasize the importance of differentiation and reliability, closed innovation in products and open innovation in manufacturing technology.

At the mature phase, they agree that convenience, open innovation in manufacturing technology, is the way to improve competitive advantage and succeed.

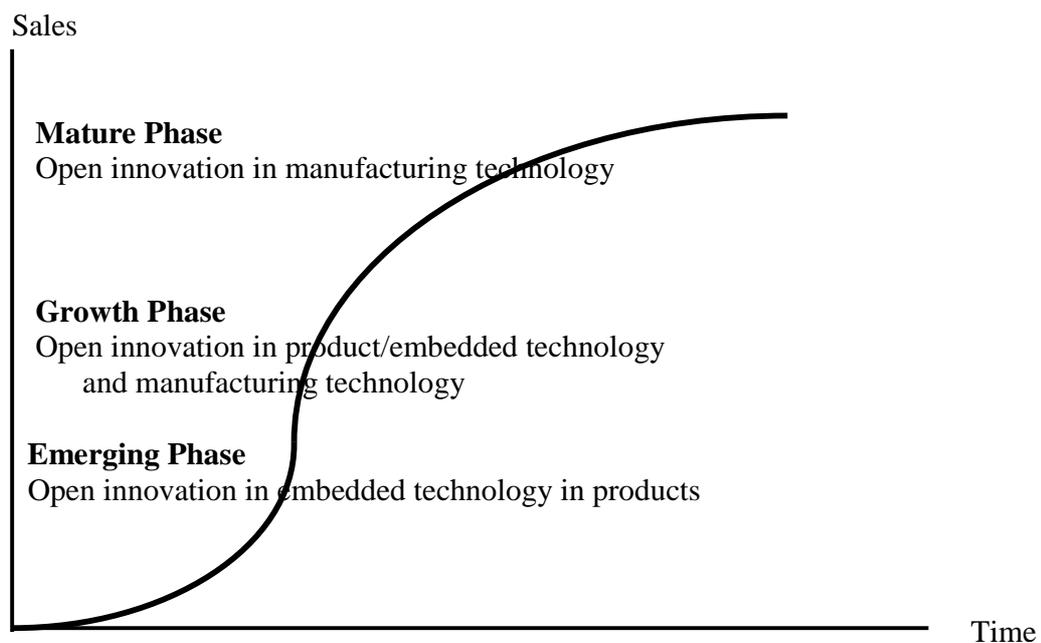


Figure 2 - Product/embedded technology/market life cycle and open innovation

EMPIRICAL ANALYSIS

Methodology

. Many researchers – Ritter and Gemunden (2002), Thomke (2001) and Von Hippel (1978) – proved the positive impact of the use of external sources of knowledge, such as customers, competitors or suppliers, on the correlation between innovation and business success. But no

research has tried to prove the positive impact on the business success of open innovation based on the use of knowledge beyond the current business and technological knowledge of the firm, beyond Miller's (1999) "wall of expectation", (technology knowledge), and "the wall of experience" (market knowledge).

The sample

We contacted 80 high-tech Israeli firms specialized in electronics and telecommunication: 42 were ready to cooperate and able to provide the full historical record of one or two products. Our sample consists of 65 products – 17 from large firms, 28 from medium firms and 20 from small firms. Twenty-one of the selected products enter the market at its emerging phase; 21 at the growth phase and 22 at the mature phase. We made an in depth interview (two hours) for each product of the people involved in it, at the market and technological level.

The questionnaire

The first part presented the innovation strategy of the firm: level of risk, R&D intensity, leadership in technology

The second part presented the profile of the firm, its specialization the selected product and its market (size and maturity).

In the third part, we have collected data at the product level, about the sources of technology, market, product and process innovation from internal and external origin.

The dependent variable:

BS: Business success

For each product, the firms had to evaluate the level of business success on a scale of 1–7 with respect to:

- the entire business;
- the innovative and technological assessment of their competitors;
- the planned business results.

BS= average between the provided scores.

The independent variables are as follows:

In each product, the firms have evaluated – on a scale of 1–5 – the volume of internal and external sources of knowledge for each main embedded technology in products, manufacturing technology and market.

X_m , X_t , X_p volume of internal knowledge from source m- market, t -embedded technology in products and p - manufacturing technology.

P_m , P_t , P_p relative importance of the internal knowledge sources m- market, t-embedded technology in products, p-manufacturing technology compared to the total of internal sources.

$\sum X_i P_i$ = Accumulated internal knowledge $\sum P_i = 100\%$

Similarly, if Y_j are sources of external knowledge,

$\sum Y_j P_j$ = Accumulated external knowledge $\sum P_j = 100\%$;

$\sum X_i P_i + \sum Y_j P_j$ = Total volume of knowledge from the different external sources for a product.

The dependent variables used are:

- EK: Total volume of external sources of knowledge – Closed/Disruptive Innovation
- CI: Total volume of internal sources of knowledge – Open/Continuous Innovation
- OI = EK/CI: Intensity of external sources of knowledge
- ET: Volume of external sources of knowledge for embedded technology – open/disruptive innovation in embedded technology in products.
- EP: Volume of external sources of knowledge for manufacturing technology – open/disruptive innovation in manufacturing technology
- EM: Volume of external sources of knowledge on new markets – open/disruptive innovation in the market.

Size of the firms

Based on total sales in 2007

Hypotheses

Our research aimed to verify the following hypotheses:

H1: Intensive use of external sources of knowledge, the basis of open innovation, is positively correlated with business success.

This hypothesis will confirm that Christensen's (1999) disruptive technology and Chesbrough's (2003, 2006) open innovation generate a positive impact on the business activities of high tech products.

H2: Intensive use of external sources of knowledge (open innovation) is more positively correlated with business success for SMEs than for large firms.

This hypothesis will confirm Hirsch's (1967) assumption that SME's take more risk than large firm and invest in open innovation

H3: Intensive use of external sources of knowledge (open innovation) is more positively correlated with business success in a market at the Growth phase than in a market at the Mature phase.

The reason is that, at the growth stage, large firms develop open innovation in embedded technology in products and manufacturing technology in order to improve efficiency and economies of scale as assumed by Hirsch (1967).

H4: Intensive use of external sources of knowledge for embedded technology in products at the Early phase of a market (open innovation in embedded technology in product) is positively correlated with business success.

This hypothesis will confirm Hirsch's (1967) and Klepper's (1996), assumption that at the Early phase of a market embedded technology in products changes frequently, and so external sources of knowledge (open innovation) are required.

H5: Intensive use of external sources of knowledge for embedded technology in products and for manufacturing technology (open innovation in embedded and manufacturing technology) at the Growth phase of the market is positively correlated with business success.

Our assumption is that at the growth phase, competition is based on the capability of the firm to improve the reliability of each function of the product, as argued by Hirsch (1967) and Christensen (1999).

H6: Intensive use of external sources of knowledge for manufacturing technology and in the market at the Mature phase (open innovation in manufacturing technology and in the market) is positively correlated with business success.

This hypothesis will confirm Vernon's (1966), Klepper's (1996) and Hirsch's (1967) assumption at the mature phase of the PLC new manufacturing technologies are requested in order to improve the competitive advantage of high tech products.

H7: Intensive use of internal sources of knowledge (closed innovation) is negatively correlated with business success.

This hypothesis will confirm that Chesbrough's (2003, 2006) closed innovation generates a lower positive impact on the business activities of high tech products than open innovation .

Results

Regression between the dependent variable, business success (BS), and open innovation (OI) (external knowledge intensity) as an independent variable, by firm size

a: All firms

$$BS = 8.064 + 2.849 OI$$

Sig .000 .006 R² = .10 N=65

b: Small firms

$$BS = 1.694 + .465 \text{ OI}$$

$$\text{Sig} \quad .111 \quad .649 \quad R^2 = .052 \quad N=16$$

c: Medium firms

$$BS = 8.081 + 3.749 \text{ OI}$$

$$\text{Sig} \quad .000 \quad .001 \quad R^2 = .326 \quad N=27$$

d: Large firms

$$BS = 4.086 + 2.128 \text{ OI}$$

$$\text{Sig} \quad .001 \quad .0047 \quad R^2 = .157 \quad N=19 \text{ H1:}$$

We found a strong positive correlation between business success and the use of external knowledge, especially for medium and large firms; R^2 is 0.326 and 0.157, respectively. H1 is confirmed.

H2:

The coefficient for medium firms is higher than for large firms ($\beta = .592$ compared to $\beta = .448$) and more significant (1% compared to 4.7%). H2 is confirmed.

Regression between the dependent variable, business success, and open innovation (OI) (external knowledge intensity) as an independent variable, by market phase

a. Products entering the market at its emerging phase

$$BS = 2.029 + 1.787 \text{ OI}$$

$$\text{Sig} \quad .057 \quad .090 \quad R^2 = .090 \quad N=20$$

b. Products entering the market at its growth phase

$$BS = 8.734 + 4.615 \text{ OI}$$

$$\text{Sig} \quad .000 \quad .000 \quad R^2 = .492 \quad N=21$$

c. Products entering the market at its mature phase

$$BS = 5.435 + 3.762 \text{ OI}$$

$$\text{Sig} \quad .000 \quad .001 \quad R^2 = .385 \quad N=21$$

H3:

The positive correlation between business success and the use of external sources of knowledge is stronger at the growth phase of the market than at the mature phase, with a higher R^2 , 0.492 and 0.385, respectively

H3 is confirmed.

Regression between the dependent variable, business success and open innovation (external knowledge intensity) in embedded technology in products (ET), manufacturing technology (EP) and in the market (EM), as independent variables at the emerging phase of a market

$$BS = -1.104 + 3.135 ET + .390EM + -2.190EP + 1.135OI$$

$$\text{Sig} \quad .519 \quad .025 \quad .639 \quad .038 \quad .038 \quad R^2 = .388 \quad N=20$$

H4:

At the emerging phase of a market, the correlation between business success and the intensive use of external knowledge in embedded technology is positive at a significant level of 2.5%. We also found that intensive use of external sources of knowledge for manufacturing technology is negatively correlated with business success, at a significant level of 3.8%.

Firms entering an emerging market do not need to invest in innovative manufacturing processes, because they will be quickly obsolete due to quick changes in embedded technologies

The R^2 of this regression with the independent variables use of external sources of knowledge in embedded technology (ET), in manufacturing technology (EP) and use intensity of external sources of knowledge (DI) is of 0.388. H4 is confirmed.

H5 and H6 are not confirmed.

Regression between the dependent variable business success, and closed innovation (CI) (internal knowledge) as an independent variable, by firm size

Medium firms

$$BS = 12.667 - 3.967OI$$

$$\text{Sig} \quad .000 \quad .001 \quad R^2 = .353 \quad N=27$$

Large firms

$$BS = 8.119 - 2.446 OI$$

$$\text{Sig} \quad .000 \quad .025 \quad R^2 = .208 \quad N=19$$

H7:

The negative correlation between the intensive use of internal sources of knowledge (Closed Innovation, CI) and business success is confirmed for medium and large firms with a significance of 1% and 2.5% and R^2 of 0.353 and 0.208, respectively.

Regression between the dependent variable, business success, and closed innovation (CI) (internal knowledge) as an independent variable, by market phase

Growth phase

$$BS = 14.907 - 4.478 OI$$

$$\text{Sig} \quad .000 \quad .000 \quad R^2 = .476 \quad N=21$$

Mature phase

$$BS = 10.126 - 3.921 OI$$

$$\text{Sig} \quad .000 \quad .001 \quad R^2 = .406 \quad N=21$$

This is particularly the case when a market is at the growth and the mature phase . R^2 is 0.476 and 0.406, respectively.

DISCUSSION

Open innovation, is required in order to improve competitiveness of tech businesses. Specialization, closed innovation, continues to play a key role in the improvement of the competitive advantage of high-tech products. How can we improve specialization and at the same time enter into open innovation? This is the basic dilemma behind the choice of the relevant innovation strategy. Innovation strategy based mainly on specialization, endangers business success (H 7), especially for medium and large firms operating in markets at the growth and the mature phases.

Open innovation is requested for all sizes of firms (H1), especially for products of medium firms (H2) and for those entering markets at the growth and mature phase (H3).

In fact both strategies are relevant: Specialization strengthens the current competitive advantage and open innovation ensures the evolution of the competitive advantage toward new relevant technologies/markets.

In further research, we propose to explore the following directions:

- differentiation between different kinds of external sources of knowledge, such as research centers, firms and their specializations;
- development of relevant models to analyse the impact of open market innovation;
- development of innovation maps as a framework for selecting the relevant innovation strategy over time .

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THE PROGRESSIVE MODEL, AN ECONOMIC RECONCILIATION PROCESS FOR REGIONS IN CONFLICT

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The main purpose of this paper is to propose a model of economic development able to generate a cross border sustainable economic development, in regions in conflict. The Italian industrial district model implements a community industry synergy process led by the authorities according to a top-down approach. The cluster model implements a clustering specialization process led, in the American version, by a bottom-up approach and in the European version by a top-down approach. The Regional Innovation System (RIS) provides the regional and international innovation networking required for both models in order to confront the global competition. The proposed progressive model creates the industrial specialization (Industrial District) required for the development of the clustering process supported by the RIS. The model is evaluated in the Israeli-Jewish and Arab and the Palestinian olive sector. The results show that the community- industry synergy of the industry district model is supported by the economic actors from both sides of the border but refused by the regional authorities and professional associations. The raw material (olives), the human capital and knowledge required in order to start the clustering process exist. Bottom up decision making process is the only way for the moment in order to activate the cluster and RIS models in the olive sector.

Keywords: Free Economic Zone, industrial district, cluster, progressive model regional development, conflict, Israel, Palestine, olive

INTRODUCTION

Regional economies have become the core of social life and policy making (Storper (1995). The new regionalism tends to focus on various regional conditions: geographic (Lagendjik 1997, Scott 1988, Storper & Walker 1989), social (Becattini 1990), resources (Madani 1999), technology, and market (Porter 1998).

The industrial district model takes advantage of social conditions and generates development based on flexible specializations (Brusco 1986, Piore & Sabel 1984), built around a communicative structure where “community and firms tend to merge” (Becattini 1990).

The cluster model (Porter 1990) takes advantage of technology and market conditions and generates a spatial process of vertical and horizontal integration (Porter 1998). The Regional Innovation System provides the innovation perspective required in order to promote the next generation of industries.

The regional innovation system (RIS) is characterized by good framework conditions, strong capacity among both knowledge generators and users, and public policies that try to strengthen systemic linkages between key actors in the region. Most authors now emphasize that innovation is the result of an interactive learning process that often involves several actors from inside and outside the companies (Simmie, *et al.* 2002).

We first review the main models of industrial development discussed in the academic literature of regional development and industrialization. We analyze the feasibility to use progressively the Industrial District, the Cluster and the Regional Innovation System model in a region in conflict in order to generate a sustained cross border economic development. We explore its feasibility in the olive sector, in Israel and Palestine, analyze and discuss the results and suggest improvements in the proposed progressive model.

REVIEW OF THE LITERATURE

Free Economic Zones

The Free Economic Zone (FEZ) is “a geographic economic area in which goods enter duty-free for processing and export, and in which investors are offered a variety of incentives (WEPZA).” The FEZ is supposed to enable less developed countries to benefit from the relocation of the labor-intensive industries (textiles, shoes) and capital-intensive industries (steel, petrochemicals) of developed countries seeking low-cost production and new economies of scale.

Product specialization in FEZs is heavily concentrated in labor-intensive activities centered on the production of textiles, clothing, electrical and electronic goods, food processing, and metalworking. Such types of activity represent more than 90% of all FEZ output (Burns, 1995). Diversification remains very limited because companies from developed countries adopt delocalization policies for a limited number of manufactured goods.

Do FEZs generate sustainable economic development in the host region/country? Empirical studies show that the ratio of indirect/direct jobs created varies from 0.25 in the case of Mauritius (ILO 1988a) to 1.4 in Madagascar (Razafindrakoto & Roubaud, 1997) and more than 2 in Honduras.

The concept of net exports (exports of finished goods minus imports of intermediate goods and materials) provides an indicator of the locally generated value added by an FEZ and of the importance of the backward linkages to the domestic economy. In the Philippines this ratio reached 42% (1994) but only 20% in Bangladesh (1995) (Madani 1999). The Mexican ratio of 22% is similar to Bangladesh (Cling & Letilly, 2001). Kusago and Tzannato (1998) study three Southeast Asian EPZs (Bataan in the Philippines; Masan in Korea; Penang in Malaysia) and reach similar conclusions. The net gain in foreign exchange is significantly reduced by outflows of profits and dividends repatriated by subsidiaries to their parent company; the use of local primary materials remains limited in FEZs; and import duty exemptions on intermediate goods constitute a disincentive to purchase from local suppliers.

Developing countries consider FEZs to be a central instrument of development policy. But actually FEZs in the emerging Asian countries have played only a modest role in development. FEZs in Korea and Taiwan were considered as only one element among many adopted in an export-led growth strategy. Export-oriented industrial activity has never represented more than 3-4% of manufactured exports in the case of Korea and 8-9% in the case of Taiwan (Basile & Germidis, 1984). FEZs are now declining in the four East Asian “tigers” (Korea, Hong Kong, Singapore, and Taiwan).

The Middle East experienced a new kind of FEZ called Qualified Industrial Zones. The US-Israel Implementation Act defines QIZ (www.customs.ustreas.gov) as the territory of Israel and Jordan or Israel and Egypt designated locally as an enclave where merchandise may enter without payment of duty or excise taxes. The QIZ program allows the Jordanian business community to export to the US free of duties and restrictions, eliminating tariffs and other commercial barriers, provided that the sum of the cost or value of material produced in the West Bank, Gaza Strip, in other QIZs, or in Israel, plus the direct costs of processing operations is not less than 35% of the price paid by the US buyer. Job creation was a central objective. In 2001, 70% of the employees in the QIZ enclave were Jordanian. In 2003 only 57% of the 26,000 employees were Jordanian (Kardoosh & El Hourri, 2004).

QIZs have not produced backward linkage to any significant extent. The QIZ sector remains heavily dependent on importing intermediate goods, materials, and accessories. Ninety to ninety-five per cent of fabrics used in QIZ production are imported. Companies operating in a QIZ are labor-intensive, low-tech assembly firms, with scant access to advanced technology. Thus, transfer of technology is practically confined to the labor aspect alone.

In conclusion, the FEZ model improves the employment situation in developing countries by providing low cost unskilled jobs. But it contributes very little to the economic development of the host region/country.

FEZ creates little synergy between firms located in the free zone and the existing business infrastructure in the local community. FEZ cannot create sustainable economic interests for a region in conflict.

The Cluster Model

Porter's cluster model (1998) is a "geographic concentration of an array of linked, competitive firms that have close buy-sell relationships, utilize common technologies, share customers, or share a labor pool that provides them with a competitive advantage. The cluster model gains competitive strength, because of better access to specialized and experienced employees, suppliers, specialized information, and public goods, and by the motivating forces of local competition and customer demand (Rosenfeld 1996; Enright 2000; Saxenian 1994).

Lissoni (2001) argues that authorities and institutions should facilitate collaboration and networking, but Porter does not endorse this view, on the grounds that such networking would lead to the reduction of competition.

An example of bottom-up development is the Silicon Valley. Silicon Valley, the first US cluster model, was initiated by private parties. Frederick Terman, professor and provost of Stanford University proposed the leasing of Stanford's lands for use as an office park named the Stanford Industrial Park. Leases were limited to high technology companies. One of the major success stories was Hewlett Packard founded by Stanford graduates William Hewlett and David Packard.

In most of the countries of the EU the clustering process was the initiative of governments. The final report of the EU experts group on enterprise clusters and networks surveyed 59 traditional clusters and 25 science-based clusters (European Commission, 2007). According to

this report "in the Member States, policies towards cluster development are generally issued by national governments with the co-operation of regional or local governments".

In Germany projects such as EXIST or BioRegio are the result of the federal government's cluster policy, a top-down approach (Colovic-Lamotte & Tayanagi, 2004). Regional governments have been required to share with the federal government the provision of financial support to spinoff companies from universities.

Finland's government encourages the development of industrial clusters. The best known cluster in Finland, called "Networking," located at Turku and Oulu, is in telecommunication and involves companies such as Nokia and ABB (TEKES, 2005).

The Cluster model requires a critical mass of specialized companies which are the result of private initiative or public initiative. In a region in conflict it will be difficult for economic and political reasons to start with a cluster model: there is a lack of industrial specialization and few private or public organizations are ready to cooperate. A preliminary model is required in order to create this critical mass of specialized companies. The Industrial District is able to play this role.

The Industrial District Model

The industrial district model first appeared in the 1970s in Italy. Industrial districts in the textile industry in Carpi and Prato, the furniture industry in Brianza and Cascina, and the footwear industry in Vigevano opened to Italian industry new markets in Europe and Japan (Brusco, 1982). Today, industrial districts in textiles, ceramic tiles, and machine tools are concentrated in Northern and Central Italy (Panizza, 1998).

The industrial district model requires flexible specialization, deepening division of labor between firms, and differentiation of enterprises by process or products

(Rabellotti 1995; Schmitz 1995; Rabellotti & Schmitz 1999), inter-firm cooperation generated by institutional meaning systems (Bellandi, 1996), geographic proximity facilitating information externalities (Gamsey, 1998), and social embeddedness through collective learning and resource sharing (Dei Ottati, 1994; Harrison, 1992).

Four aspects of Beccatini's definition (Beccatini, 1979) deserve particular attention. These contribute to distinguishing the concept of industrial districts from that of cluster as discussed by Porter (Porter, 1998).

They are: the role of the institutions (Provasi 2002, Di Giacinto V. and Nuzzo G. 2004), the role of local cultures and values (Marini 2000), the role of social capital (Putnam 1993, Scarlato 2001), and the role of human resources (D'Antonio and Scarlato 2000).

The main feature of an industrial district is the role of the institutions (formal and informal), which can be defined as "a set of humanly devised behavioral rules that govern and shape the interaction of human beings, in part by helping them to form expectations of what other people will do" (Nugent and Lin 1996),

By “formal institutions,” we mean a system of codified norms, rules, laws, constitutions, and organizations. By “informal institutions,” we mean “norms and rules which have passed the test of historical time” (Pejovich, 1999).

There are 199 industrial districts in Italy. They employ approximately 2.2 million people and produce over one third of Italian exports. One of the most successful and structured industrial districts is in the Emilia-Romagna Region.

The most important sub-districts in this region are Bologna (automatic machines), Modena-Reggio Emilia (agricultural machines, ceramics), Mirandola (biomedical), Parma (foodstuffs), San Mauro Pascoli-Forli (shoes) and Rimini area (woodworking machines).

ERVET, the region’s managing organization, is held jointly by Emilia-Romagna Region (80%), commercial banks and credit institutions (18%), industrial associations, and the Emilia-Romagna Regional Union of the municipal chambers of commerce. For each main sector, ERVET has established research centres for the textile/apparel sector, the shoe industry, the farm machinery, the construction industry and for the ceramics industry in Bologna;

Morrisson (2004) and Spaventa (2007) have discussed the problematic future of the industrial district model. Morisson (2004) reached the conclusion that the large enterprises do not allow knowledge to freely circulate within and between districts and do not play the role of gatekeepers who facilitate the transmission of information. Similar findings by Lissoni (2001) indicate that privately appropriated knowledge is not transferred to other members of the industrial district. He proposed public intervention supporting the individual leaders who might serve as engines of growth for local systems, in order to counter the destructive aspect of what he calls the leaders’ “creative-destruction mechanism.”

Spaventa (2007) distinguished between the first four (positive) stages of development of the industrial district and the fifth one (problematic), the internationalization process.

The four positive stages of development are as follows:

- 1) Birth: An at-first scattered handicraft presence in the area constitutes one of the preliminary conditions for the development of this organizational model.
- 2) Preconditions for take-off: the progressive development of a network of linkages and of a first process of division of labor.
- 3) Take-off: the development and the strengthening of local institutions
- 4) Drive to maturity: the strengthening of the process of internal and external division of labor.

In the fifth stage the leading firms start to go international to expand their market or to confront increasing international competition by reducing their production costs.

Brioschi, and Cainelli (2001) analyzed the situation of the industrial districts in Italy and concluded that the district model can still operate successfully if there is a “district groupification” process. In the Emilia Romagna’s industrial districts, 52.2% of firms belong to a group and a corresponding 89.9% of employees work in firms belonging to a group.

The industrial district at its first stage merges firm with community and is able to generate economic development based on a common understanding of populations in a region in conflict. Based on this primary common industrial infrastructure, the industrial district model will be able to generate, at its internationalization stage, a clustering process towards the development of industrial specializations in the region.

The Regional Innovation System Model

Initially, the concept of the innovation system was applied to the national level (Lundvall 1992, Nelson 1993, Niosi et al.1993, OECD 1999). The national innovation system (NIS) literature has revealed huge differences between countries in their economic structure, R&D base, institutional set-up, and innovation performance (Edquist 2001). A growing interest in regional innovation systems has emerged (Acs 2000, Bathelt and Depner 2003, Fornahl and Brenner 2003, Mytelka 2000).

Autio (1998) provides a schematic illustration of the structuring of regional innovation systems. A RIS is made up of two subsystems. The knowledge application and exploitation subsystem comprises the companies, their clients, suppliers, competitors, as well as their industrial cooperation partners. The knowledge generation and diffusion subsystem as the second main building block of an RIS consists of various institutions engaged in the production and diffusion of knowledge and skills. Key elements include public research institutions, technology mediating organizations (technology licensing offices, innovation centers, etc.), as well as educational institutions (universities, polytechnics, vocational training institutions, etc.) and workforce mediating organizations.

A strong regional innovation system promotes competitiveness and growth and is characterized by good framework conditions, strong capacity among both knowledge generators and users, and public policies that try to strengthen systemic linkages between key actors in the region." (OECD, 2007)

Innovation is the result of an interactive learning process that often involves several actors from inside and outside the companies (Simmie et al.2002). Innovation is a social and local process.

"Innovation is in general a groping, uncertain, cumulative and path dependent process: knowledge is spatially 'sticky', and tacit knowledge, despite the growth of knowledge management tools, is not easily communicated, other than through personal interaction in a context of shared experiences" (Morgan, quoted in Amin and Cohendet, 2003).

A key dilemma for regions is how to invest in R&D in such a way that at least part of the benefit is captured within the region in some form. At a strategic level, there are initiatives to create regional innovation system institutions that act as a mechanism to maintain links between different actors.

The Brainport initiative in the Eindhoven region has this system-supporting function as one its main missions. The Brainport Programme aims to strengthen the economic development as well as the knowledge infrastructure of the Eindhoven-Leuven-Aachen triangle. It is public-private funded by its triple helix partners and is run in parallel with activities of the regional

economic development agency (REDE). The initiative covers twenty-one municipalities in southeast Brabant, but has a wider geographic scope than the boundaries of its constituent municipalities.

Issues on the agenda are promotion of open innovation (collaboration on an international level between companies and research institutions), creation of centers of excellence, a balanced labor market, attracting venture capital, improvement of manufacturing companies' conditions in order to attract new investment, and strengthening the knowledge exchange between medium-sized and small firms.

The issue for regional policy makers is where their own research efforts, or those of the national level in the region, fit in to their development objectives.

The initiatives of the regions appear to focus mainly on trying to orient publicly funded or managed knowledge assets in such a way that they are better able to engage in joint activities with private firms. These assets are mainly national or regional research institutes or major universities and higher education institutions. The influence of these bodies in practice varies widely from one region to another and also with respect to sector.

The methods used include: 1) promoting co-location of R&D generators alongside private firms in science parks and similar structures; 2) promoting joint R&D and encouraging universities and research labs to emphasize commercial applications; and 3) supporting open innovation platforms and privately managed R&D centers.

RIS provides the conditions required for the continuous and sustainable development of the clusters and industrial districts in a region based on local and international demand.

THE PROGRESSIVE MODEL OF DEVELOPMENT

Figure 1 summarizes the effects of each model of development according to two main processes: community-firm synergy and clustering specialization process.

FEZ generates limited synergy between firms and community. The industrial district creates community-industry synergy but does not generate a process of clustering specialization. The cluster generates the development of vertical and horizontal industrial specialization but does not integrate firms with the community and requires a critical mass of specialized companies. The RIS requires a preliminary infrastructure of clusters/industrial districts in order to generate the innovation networking supporting the development of the industry.

We argue that a progressive model of development, that is, one which starts with an industrial district followed by a process of clustering specialization (Cluster model) based on a regional and innovative perspective (RIS model), is a model able to create gradually sustainable common economic interests in a region in conflict.

The Industrial District creates the critical mass of specialized companies and creates the required trust between population in conflict by merging firms with community.

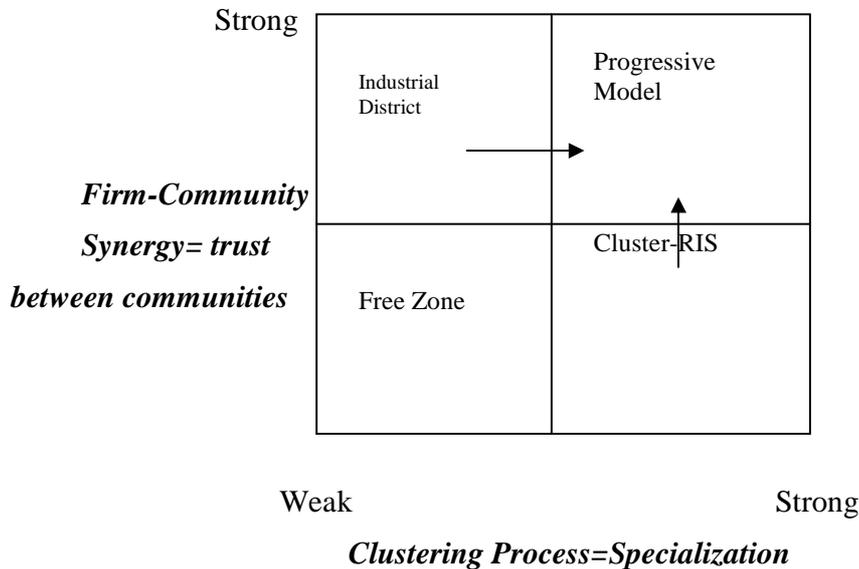


Figure 1 - Positioning of the Industrial Development Models

The Cluster and RIS models generate development based on trust and specialization.

The progressive model requires certain preliminary conditions in order to be implemented with good chances of succeeding and generating sustainable economic development:

1. The populations in the region in conflict have complementary economic interests.
2. The selected domains of specialization are able to generate a clustering process, and the economic forces are able to support it. By economic forces we mean: the units of production (firms, farms), the supporting and related industries and the providers of services .
3. The selected domains of specialization have a regional and innovative perspective, and the economic forces are able to support the development.
4. The local authorities from both sides have a common view of regional economic development and play an active role

The initiative for each model can come from the local authorities (top-down approach) or from the economic actors (bottom-up approach).

The top-down approach led by the local/national is implemented in the Industrial District model. The bottom-up approach led by the economic forces is implemented in the American version of the cluster model. The top-down approach is implemented in the European cluster model and the Regional Innovation System model. A mixed top- down bottom-up approach is required in a region in conflict in order to overcome the political aspect of the conflict and to create a new common economic infrastructure.

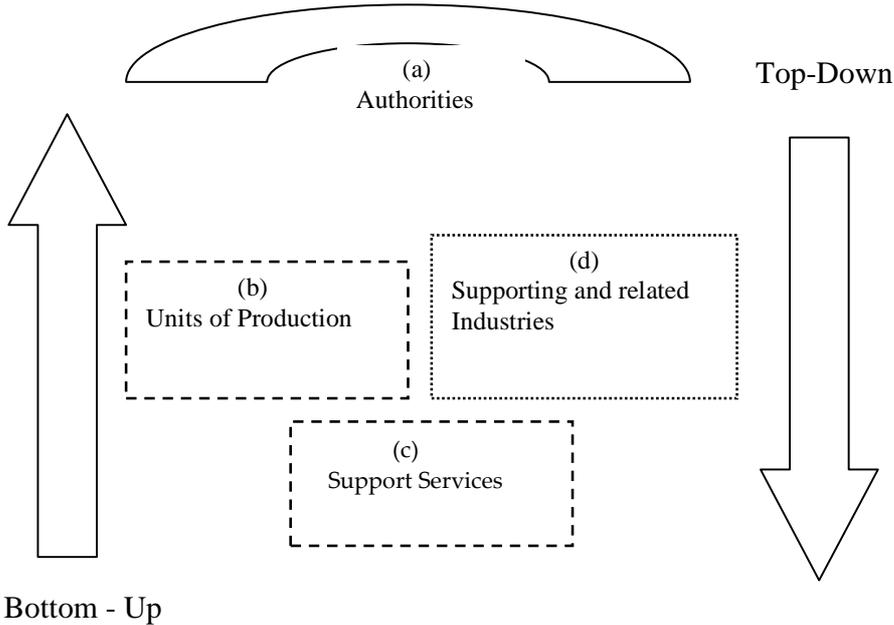


Figure 2 - The Top Down and Bottom Up Approach

EMPIRICAL STUDY

The olive tree has strong roots in the Bible and the Koran as a source of life (energy, food, health, holiness) and a symbol of peace (the olive branch found by Noah's white dove). In good years, this sector provides three million work days and current revenue for thousands of growers and hundreds of olive press owners functioning in the West Bank (PARC, 2004). Olive oil comprises 15% to 19% of Palestinian agricultural output, depending on whether it is the "on-year" or "off-year" of the two-year cycle (United Nations Development Programme (UNDP), World Food Programme (WFP), UN Office for the Coordination of Humanitarian Affairs (OCHA). Olive production constitutes most of the fruit production in the West Bank, making up to 81.1% of the fruit tree area in the Palestinian Territory. The largest olive plantations are concentrated in the northern part of the West Bank (70%)(MOPIC 1998).

In Israel, there are 180,000 dunams of olive trees, with 80 percent concentrated in the north (Upper and Lower Galilee) where the population is composed of a majority of Arabs (around 600,000 Arabs; around 560,000 Jews; CBS 2006).

Hundreds of independent small and medium-sized growers and producers of olive oil, Arabs and Jews, work side by side and provide most of the annual Israeli consumption of 6000 tons of olive oil (Israeli Olive Board 2006).

The Palestinian and the Arab Israeli consumers, without distinction as to income level, use the olive oil as a traditional product. The Jewish Israeli consumer buys olive oil and olive oil-based products (soap, cosmetics) mainly as a premium product having a health impact. Olive oil in the Jewish market is four to six times more expensive than other oil such as sunflower oil.

Thus, the olive oil sector, with the similarities and differences between the populations, fulfils the required preliminary conditions. But, are the economic actors and authorities ready to implement the Industrial District model in the north of Israel and the West Bank, which infrastructure is required and is the bottom up or top down process feasible? Following are the hypotheses we propose to examine in order to answer that question.

Hypotheses

H1: The concept of a cross border Industrial District is expected to have a positive economic impact.

H2: Educational and research support infrastructure are expected to have a positive economic impact in the selected sector

H3: The local authorities and professional associations are ready and able to support the implementation of the Industrial District model.

If the Industrial District model is feasible (H1 accepted), we will interview existing and potential economic actors and authorities, in order to analyze the feasibility of the implementation of the Cluster and RIS models in the selected sector.

Methodology

In order to test the first hypothesis, we interviewed a sample from each category of economic actors We have selected, from the list of producers (growers and producers of olive oil), a random sample of 103 growers of olives and producers of olive oil from both groups from the northern regions (Galilee in Israel and the northern West Bank): 26 Palestinian growers, 25 Palestinian producers, 13 Israeli growers and 39 Israeli producers of olive oil (Table 1).

	<i>Growers</i>	<i>Producers of olive oil</i>	<i>Total</i>
<i>Galilee (Israel)</i>	13	39	52
<i>North of the West Bank (Palestine)</i>	26	25	51
<i>Total</i>	39	64	103

Table 1 – Sample of Israeli and Palestinian Growers and Producers of Olive Oil

We proposed to the interviewed growers and producers two scenarios: Separated economies or implementation of the Industrial District model as the first stage of the progressive model. They were asked which scenario they support and how they evaluate the impact of both scenarios on the following parameters:

- Total Sales
- Total Work Force
- Costs of production
- Prices

We asked the sample which support organizations: local authorities, professional associations, and support services (R&D centers, universities and colleges) will have the strongest impact on the development of common economic interests, responses ranging from 1 (no support expected) to 5 (very strong support expected). In order to test the second, third, and fourth hypotheses, we interviewed the following relevant local/national authorities and professional associations and representatives from the different support organizations:

a) Local/national authorities and professional organizations interviewed: the planning department of the Israeli Ministry of Agriculture; the Palestinian Ministry of Planning and International Cooperation; The Israeli Olive Board; the Palestinian Agricultural Relief Committees (PARC);

(b) Support organizations: Israeli Vulcani Agricultural Research Institute; Agricultural Faculty of the Hebrew University; Technion; Al Arroub Palestinian Agricultural College of Hebron University.

(c) Up stream and down stream olive sector related and supporting industries.

We first asked them which scenario they support and second, if they expect the development of a clustering process and of a Regional Innovation System

Analysis

4.2.1 H1: The economic actors approve a bottom-up approach and expect a positive impact of the progressive model starting with a common industrial district. (Table 2)

Very few Palestinian growers (10%) supported the Separation scenario in comparison with 20% from the Israeli side. Israeli olive growers are afraid of the cheaper Palestinian olives. But Israeli producers of olive oil (who can also be growers) are in favor of the industrial district because of the expected benefit of cheaper manpower and olives for oil production. Under the Separation scenario, the Palestinian growers expect, during the period 2004-2006, a drop of 12% in sales, and the Palestinian producers of olive oil expect a decline of 27% in their sales (Table 3). In the scenario of the common industrial district, the Palestinian growers and the producers respectively expect an average growth of 42% and 145% during the same period.

	<i>Growers</i>	<i>Growers & Owners of Olive Press</i>	<i>Producers of Olive Oil</i>
<i>Separation Palestine Israel</i>	.88	1.07	.73 1.22
<i>Industrial District Palestine Israel</i>	1.42	1.12	2.45 1.19

Table 2 – Expected Sales in 2006 in Relation to 2004 in the Separation and Industrial District Model Scenario *
Significance level <1%

The Israeli producers of olive oil and growers expect some growth of sales in both scenarios: 22% growth in the separation scenario in comparison with 19% in the Industrial District model scenario. The Israeli growers and owners of olive presses expect higher growth in the Industrial District model scenario (12%) than in the separation scenario (7%). According to those results The Industrial District is feasible and H1 is accepted.

The expected sales growth in the Industrial District model scenario for the Palestinians growers is mainly explained by the support of the universities (Table 3). H2 is accepted by the Palestinian side.

The professional associations are expected to play a negative role (Table 3). H3 is rejected by the Palestinian side.

<i>Adjusted R Square: .59 Number of cases: 18</i>	<i>B Coefficient</i>	<i>Standard Error</i>	<i>t</i>	<i>Significance</i>
<i>Constant</i>	2.009	1.704	1.179	.258
<i>Total Manpower</i>	.137	.076	1.796	.094
<i>Expected Support from Educational System</i>	1.463	.384	3.780	.002
<i>Expected Support from Associations</i>	-1.695	.608	-2.790	.014
<i>Expected Improvement of Prices</i>	-.609	.375	-1.625	.126

Table 3 - Ratio Expected Sales 2006/Sales 2004 as a Dependent Variable in the Industrial District Model Scenario for Palestinian Growers

<i>Adjusted R Square: .30 Number of cases: 34</i>	<i>B Coefficient</i>	<i>Standard Error</i>	<i>t</i>	<i>Significance</i>
<i>Constant</i>	7.563	3.539	2.137	.058
<i>Expected Improvement of Prices</i>	4.811	1.835	2.622	.026
<i>Total Manpower 2004</i>	.110	1.291	.085	.934

Table 4 - Expected Sales 2006/Sales 2004 as a Dependent Variable in the Industrial District Model Scenario for Palestinian Growers and Producers

<i>Adjusted R Square: .23 Number of cases: 29</i>	<i>B Coefficient</i>	<i>Standard Error</i>	<i>t</i>	<i>Significance</i>
<i>Constant</i>	16.161	3.150	5.131	.000
<i>Expected Support from the Government</i>	-19.204	7.925	-2.423	.023
<i>Expected Support from the R&D Centers</i>	20.786	9.419	2.207	.037
<i>Expected Improvement of Prices</i>	2.551	1.328	1.921	.067
<i>Expected Improvement of Employment</i>	-5.536	2.365	-2.340	.028
<i>Total Manpower 2004</i>	.427	.350	1.220	.234

Table 5 - Expected Sales 2006/Sales 2004 as a Dependent Variable in the Industrial District Model Scenario for Israeli Growers and Producers of Olive Oil

The high sales growth expected by Palestinian growers and producers is due to the expected higher prices (Table 4).

The Israeli producers expect support from the research centers to have a positive impact on sales. H2 is accepted by the Israeli side.

The impact of the authorities on sales growth is expected to be negative (Table 5). H3 is rejected by the Israeli side. They also expect lower employment with higher sales growth and so higher manpower efficiency.

The Palestinian actors and most of the Israeli actors support the implementation of the Industrial District model and expect a positive impact on their business activities.

Reject of H3: In depth interviews of local authorities and professional associations

The Israeli Ministry of Agriculture supports the Israeli Olive Board (IOB) financially with the aim of improving the quality of the olive oil and guaranteeing a minimum revenue to the growers. The Israeli Ministry does not support the Industrial District scenario, because they believe that Palestinian competition will have a negative impact on the revenue of the Israeli growers and on the quality of the olive oil sold to the Israeli customer.

The Palestinian Ministry of Planning and International Cooperation planned in 1998 to develop the Palestinian "olive oil industry cluster" (MOPIC 1998) by restructuring the flow of international capital and technology, opening international trade, and establishing specialized institutes to develop more sophisticated brands of olive oil. Mainly for political reasons, they do not take into account any cooperation and therefore support the separation scenario only.

The Israeli Olive Board (IOB) and the Palestinian Agricultural Relief Committees (PARC), the dominant professional organizations supporting the olive sector, adopt positions similar to those of the relevant ministries on either side.

Potential clustering process in the olive oil sector- Interviews with related and supporting industries

In Palestine the industrialization process in this sector is quite limited. One factory produces soap based on olive oil, and a few small family firms produce pickled olives or olive wood handicraft products for tourists.

In Israel ten firms produce marinated olives in cans. It is the main olive processing food industry.

But we found several initiatives which could start a clustering process of related and supporting industries in the olive sector. Herewith the initiatives and proposals of the entrepreneurs and researchers we met and interviewed:

- Two Israeli cosmetic firms produce moisture cream for hair and for dry skin based on olive oil. One of them produces a cream against skin diseases and burns.
- One small firm produces a homeopathic drug based on imported olive leaves.
- Organic fertilizers adapted to olive trees are produced locally in Israel by one firm but on a small scale.
- A local Israeli researcher (Eger farm) has developed a solidification process for olive oil. By his patented method he produces margarine based on olive oil in Greece (where the extra virgin oil is 50% less expensive) and exports it to Japan and South Korea as a healthy margarine.
- Shakers for picking olives are produced in Israel and can be used only in new plantations where each tree has one trunk. Old trees develop many trunks and cannot be shaken.

Efficient mechanical harvesting not only cuts costs but increases the quantity and improves the quality of the olive oil (no contact with the ground). It does not impair the olives and, by diminishing the time from harvesting to pressing, it results in lower acidity. The cost of production of the picking system (70% of the production cost of the machinery is labor) will be cheaper if produced in cooperation with a Palestinian partner.

- The small market for new plantings in Israel limits the production of a wider range of varieties by propagation nurseries. Israeli greenhouse owners tried to market trees to Palestinian and Jordanian growers, but their prices were too high. If the progressive model were implemented, it would be possible to build a regional network of nurseries and greenhouses, using the comparative advantage of each group, thus enabling lower seedling supply costs for both Palestinian and Israeli growers and a wider range of trees.
- Ten per cent of the planted area of olive trees in Israel is irrigated and less than 5% in Palestine. The use of recycled water can improve production (Faci et al. 2003), but projects of this kind require economies of scale (enough quantity of waste water), regional authority initiative, and long term loans. Joint installations would be able to provide water economically to olive tree plantations on both sides of the border.
- The natural cycle of olive production (alternating higher and lower yields over a two-year cycle) requires the development of warehousing services in order to limit the fluctuation of prices. Regional warehousing becomes profitable.
- Currently, growers from both sides sell directly to retailers (olives) or producers of olive oil (including olive press units). Olive press units sell directly to olive oil producers or to retailers. Olive oil producers sell directly to retailers and play the role of producer and wholesaler. There is no national or regional business structure supporting growers, olive press units, or olive oil producers in their business activities. Each one acts on his/her own. Only a few large producers of olive oil have their own marketing network (Etz Hazit, Zeita).
- There are no Israeli or Palestinian firms producing medicinal products based on olives. Olive oil and leaves contribute to the treatment of several illnesses such as cardiac disease (Aviram & Eias 1993) and cancer (Kossoy, Madar, Stark 2001, Kossoy et al. 2001). Olive oil prevents loss of the skin's natural moisture, softens the skin, and attracts external moisture to it. Olive oil also cures skin inflammation and burning sensations (Eger 2004) and has antibacterial (Panizzi et al. 1960) and antiviral properties (Renis 1969).
- Olive oil amplifies the effect of drugs in cancer treatments and improves the absorption of nutritional elements such as lycopene in the body (Lee et al. 2000). The interviewed researchers expect that in the Progressive model scenario, the Israeli high-tech industry will find international financing in order to exploit the results of their researches.
- Based on the treatment of waste water and residues of olive processing, regional units will be able to produce energy and fertilizers and raw material for the pharmaceutical and cosmetics industries (Knobloch 2004).

Figure 3 summarizes the potential clustering process which could result if the Progressive model is implemented. H3 is supported.

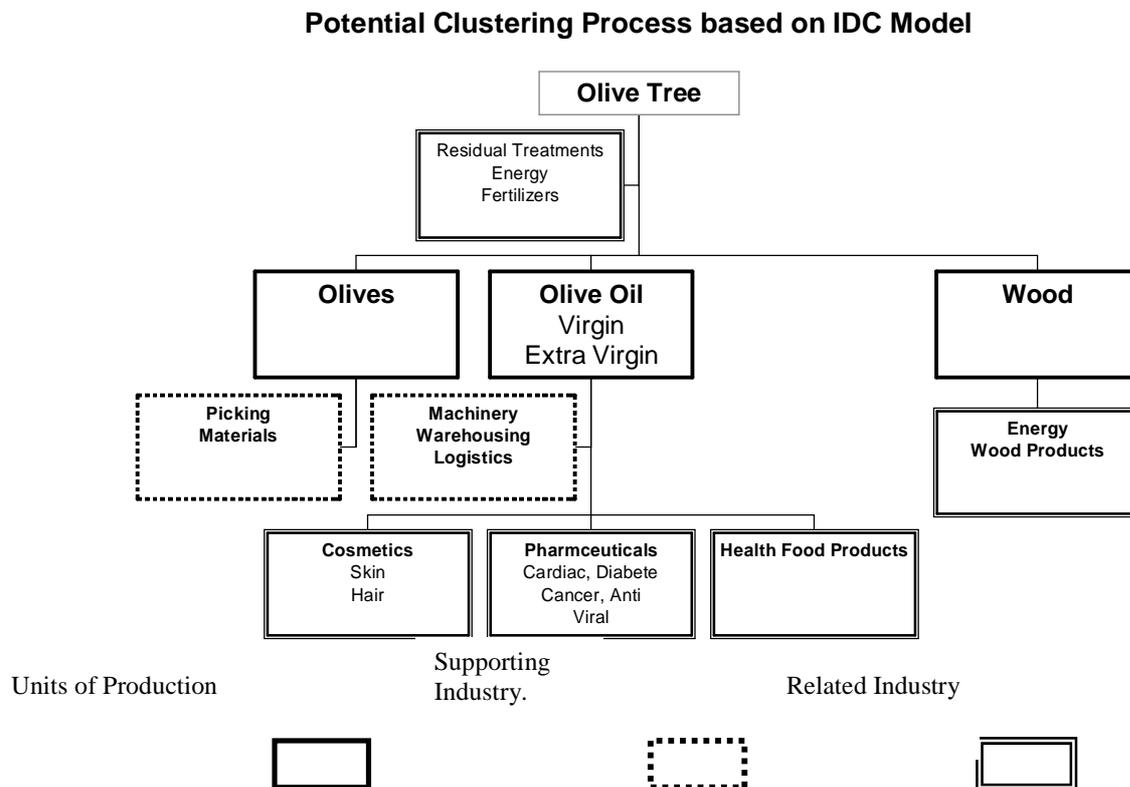


Figure 3 – Potential Clustering Process based on IDC Model

Feasibility of the Regional Innovation System

In Palestine two institutions work on research contributing to the olive sector: Al-Arroub Agricultural College of Hebron University is carrying out research on pest control; and the Department of Animal Husbandry in the Faculty of Agriculture of An-Najah University in Nablus is working on the use of olive pulp to feed chickens.

In Israel, three institutions are active in research: the Division of Oleiculture and Viticulture of the Vulcani Center is carrying out research on improving the efficiency of the growing process such as expanding the use of recycled water and improving fertilizers.

The School of Nutritional Sciences in the Faculty of Agriculture of the Hebrew University has undertaken several studies on medical applications for olive oil and olive leaves (diabetes, cancer).

The Rappaport Institute for Medical Sciences at the Technion has undertaken research, mainly on olive oil, as an antioxidant preventing the development of bad cholesterol (cause of cardiac disease).

In the general policy framework of cutting back government expenditures, the Israeli government has cut down on most of the budgetary allocations for those studies. The research centers, especially the Israeli ones, support the Progressive model scenario, which will stimulate a wider range of research.

The relevant R&D infrastructure exist but the relevant national/ regional policy is missing

DISCUSSION

The process of generating joint economic interest in a region in conflict creates positive conditions towards the future political resolution of the conflict. This process will occur only if both groups are aware of the potential benefit resulting from that process in the short, medium, and long run.

The results of our research show that Israeli and Palestinian growers and producers expect that the Industrial District model will have a strong impact on their sales, due to higher prices. But the local authorities and professional associations on both sides are reluctant to offer any support to the implementation of this model. They have difficulties in internalizing the end of the conflict and changing their attitude. They are not ready, for the time being, to play a role similar to that played by ERVET, the common organization of the local authorities and the economic actors in the Emilia Romagna industrial district (Italy).

According to the bottom-up approach, the common organization has to be initiated by the direct beneficiaries, i.e., the economic actors, growers, and producers of olive oil, research centers and universities. Only their common action will convince the local authorities and professional organizations to play their role.

The cross border Industrial District in the olive sector will create economies of scale in research and development, the production of inputs (fertilizers, pesticides, irrigation and water management), the picking and transportation processes and the production (olive presses, water treatment) and warehousing of olive oil.

It may be expected that the growth in quantity of high quality olive oil, on the one hand, and the wider activities of the research centers, on the other, will generate a bottom-up clustering process, i.e., the development of new industries with a high added value such as cosmetics, health foods, and medical industries, as discussed in this research. It is the second stage of the progressive model.

The required institutions, universities, professional schools, research centers, professional associations, and relevant regional authorities for the creation of a Regional Innovation System already exist, but the networking is weak in training, education, and research and development.

Is the interest of the economic actors strong enough to push to completion the generation of the two missing links: the active involvement of the regional authorities and the innovation networking? This is the subject of a new research, in which we will analyze the efficiency of different approaches to cooperation/organization between economic actors in agriculture and agro-processing domains.

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IMPACT OF NUTRITIONAL INFORMATION ON YOUNG MALAYSIAN CHILDREN FOOD PREFERENCE

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Purpose – This study looks into three area of concern i.e. the awareness of nutritional information among the respondents, sources of nutritional information and examining the influences of nutritional information on young Malay children’s preferences. Above all the study tries to analyze whether Young Malay children food preferences are influenced by nutritional information or not.

Design/methodology/approach – An interview was conducted by asking the respondents some questions that relate to nutrition. An experimental study also utilized to examine the influence of nutritional information on young Malay children’s preferences.

Findings – This study has shown that in order to educate children to eat nutritious food, necessary information need to be provided to them accordingly. Parents, teachers and media shall play their roles in providing such information. The findings from the research also revealed that young Malay children have information about nutrition but is not sufficient to them. More nutritional information is highly needed by young Malay children.

Research limitations/implications – It would be useful to conduct the study on a huge number of respondents and perhaps to look at moderating effects of children social background. Thus, the findings of the study might not sufficient to provide information to the industry, government, parents and community at large. Therefore, more extensive study is highly needed in the future. Further research could cover different ethnic and kindergarten.

Originality – The data indicated the primacy of whether nutritional information can shift young children preference. The results of our study may assist the food industry in what they can produce and how they want to promote the product.

Keywords Nutritional Information, Children behavior, Food preference

Paper type Research Paper

INTRODUCTION

Background of the Study

Nutrition plays a key role in the health of individuals. Hence, information or knowledge about nutrition is very crucial to everybody. Getting reliable information about nutrition is a big challenge for everyone especially children. In general, information on nutrition is likely to come from television, radio talk shows or news, daily newspaper, favorite magazines, a variety of nutrition-oriented books and the internet (Rinzler, 2006). Those sources of information can be categorized into three key environments as categorized by Montague (2002) i.e family and home environment, the educational and care environment and the broad community environment.

Many efforts have been taken by much pediatric health to increase children’s knowledge and understanding about food-related of diet-disease relationships (Wardle and Huon, 2000). However, there is no direct evidence that changes in knowledge are necessary or sufficient for

behavior change in children. Some findings, for example, Tinsley (as cited in Wardle and Huon, 2000) has shown that, in general, children are not especially concerned about health outcomes. In fact, the health is not a priority or not an important issue for them especially for those younger than 9 years old (Gochman, as cited in Wardle & Huon, 2000). Thus, it is very crucial to stress on an understanding of the way health-related beliefs with food preferences and choices in order to increase children's intake of nutritious food that might enhance their well being and health (Wardle and Huon, 2000).

There was evidence from a study which was conducted on 9-to 10-year-old on children's food expectations and preferences. Baranowski (as cited in Wardle and Huon, 2000) reported that many children believed 'if a food tastes is good, it must not be good for me; and if a food tastes bad, it is probably good for me'. This finding raises the possibility of the reverse effect (Wardle and Huon, 2000): 'if food is said to be healthy then I probably won't like it'. This tells us that if health information such as labeling does not induce negative expectations in children, then this would have important implications for the way that healthy diet should be promoted to children and how parents might best get their children to eat a healthy diet (Wardle and Huon, 2000).

Objective(s) of the study

This study primarily interested in investigating whether Young Malay children food preferences are influenced by nutritional information or not. Children normally get nutritional information from the environments in which they live i.e family and home environment, the educational and care environment or by the broad community environment.

The objectives of the study are as follows:

1. To determine the awareness among young Malay children knowledge about nutrition.
2. To identify the sources of young Malay children's on nutritional information.
3. To examine the influences of nutritional information on young Malay children's food preferences.

Statement of the Problem

For the purpose of this study, the following research question will be asked:

1. Does young Malay children aware about nutrition?
2. What are the sources of information on young Malay children's nutritional information?
3. Can nutritional information influence young Malay children's preferences?

Significance of the Study

The findings of the study will give new information to the marketers on how they can develop the right strategies before producing their product to consumer especially to young children. Thus, this finding can be used as one of the guideline to all marketers in conducting an effective promotion on the importance of nutritious on children.

They will know the understanding or knowledge on young Malay children about nutritious food and their preferences in food. The sample of the study covers only young Malay children.

Limitation of the Study

There are limitations of the study that include:

1. Difficulties to get information about awareness on young Malay children on nutritional information. Thus, it is hard to collect reliable, accurate and complete information about those objectives.
2. The number of respondents should be large and various to ensure the reliability of result as a whole. However, due to time constraint only a small sample could be chosen.
3. To collect accurate data from children is very challenging and crucial as children can easily lose focus while I was interviewing them.

LITERATURE REVIEW

Introduction

In many part of the world, the amount of scientific evidence on the positive contribution that balanced nutrition and a diet rich in nutrients contribute to the human well being and health have been increased. This scenario is supported by growing interest amongst health professionals and the food industries in raising awareness amongst the people (Asian Food Information Centre, 2006).

It is undeniable that nutrition is very important to human life for all age levels. Awareness on nutritional information promises a better health condition to one's body. Montague (2002) sees nutrition is closely linked to the early growth and development of a child, prevention of disease as well as the lifelong health of the child. The less consumption of nutritious food during childhood is linked to adult disease such cardiovascular and diabetes (Montague, 2002).

A national survey conducted in Australia by National Health and Medical Research Council in 1985 and 1995 (Montague, 2002) shown some worrying facts about children's nutrition and eating habits. The survey in 1995 generally concludes that children consumed higher levels of saturated fats than recommended, more sugar than starch as well as the fall of intake of calcium, fruit and vegetables. Due to this fact, there was a significant increase of rate of both overweight and obesity in 1995 in Australia as compared to 1985 survey (Montague, 2002). More than that, according to Waters and Baur (2003), children in Australia now and in the future are threatened by obesity problem. Overweight and obesity are more likely cause health problems such as diabetes, asthma, cardiovascular disease, cancers, hormone disturbance, joint problem, back pain and psychological problems throughout their lives.

Definition of Nutrition

Nutrition equals life. It is the science of how the body uses food and it is life. Nutrition is about why and what one eats and how the food that one gets affects his body and health (Rinzler, 2006). Rinzler further stresses that if we do not eat and drink nutritious food and beverages, our bones may bend or break (not enough calcium, our gums may bleed (not enough vitamin C) or our blood may not carry oxygen to every cell (not enough iron). Thus, eating and drinking is not just merely eating and drinking. Our bodies actually need good food that means food with the proper nutrients in order to live well. Therefore, consuming good nutrition means having good and healthy life.

The Nutritional Awareness among Young Malay children

It is clear that nutrition education for children in nurturing the culture of healthy eating for the long-term period is very crucial and salient. Children, in their first six years of their life, need proper nutrition safe and nutritious food to grow well and healthy. However, a study that was conducted by Ministry of Health with UNICEF collaboration (Tee E Siong, 2005) showed that the consumption of healthy food among children was still at low level. The result of the survey showed that 19.2% were underweight and 16.7% were stunted. According to the Tee E Siong (2005), in a review of available data showed that 6.0% of school children aged seven (7) to sixteen years old in Kuala Lumpur are overweight while 3.5% were obese.

In Malaysia, the effort to create awareness among Malaysian children has taken place since 1972 through several programmes. In 1972, the Ministry of Education took initiative to include nutrition education into the primary health care system under the Operation Renewal programme (Koon, P.B. et al., 2006). Later on, in July 1983, a joint effort was taken the Ministries of Health and Information by introducing a mass media program using radio and television. In 1997, the Healthy Lifestyle Programme of healthy eating was introduced by the Ministry of Health. Apart from that, all those programmes are supported with several nutrition education programs which were designed for schools have been implemented on an ad-hoc basis, including programs for preschool children, primary school children and adolescents. The Ministry of Education has included basic principles of nutrition in the primary school curriculum. The most significant programme is the Program Sekolah Sihat programme (Koon, P.B. et al., 2006).

The Program Sekolah Sihat was initiated with the objectives of providing nutrition education and promoting healthy lifestyles to Malaysian primary school children programme (Koon, P.B. et al., 2006). It was piloted at 12 primary schools in Kuala Lumpur and Selangor. The goal of nutrition education is to teach children to eat a well-balanced diet that contains a wide variety of foods, and that children learn to make wise food choices independently. The programme involves huge participation of parties who relate to school children inclusive of school-wide policies that support healthful eating; a sequential, comprehensive health education curriculum, inclusive of nutrition, that is active, fun and culturally relevant; coordination between school food service and nutrition education; training for school staff; family and community involvement as well as and program evaluation.

A study and evaluation on the programme conducted by Koon, P.B. (2006) and his team found out that nutrition knowledge improved significantly ($p < 0.001$) from 64.6 ± 19.8 marks during baseline to 69.6 ± 20.8 marks at follow-up. They also found out an encouraging change in

dietary habits among school children by the reduction in snacking practice with a decrease of 23.6% from 95.1% at baseline to 71.5% at follow-up. Besides that, there is also an improvement in the consumption of fast food with a reduction by almost half. Choice of food items and beverages during school breaks also improved in which the percentage of those carbonated drinks decreased by 12.3%. From those findings, they concluded that the programme succeeded in improving children's nutritional status, nutrition knowledge and food choices. This program proved to be an innovative and practical approach to engage and build the capacity of school children and teachers in nutrition.

The Sources of Nutritional Information among Young Malay Children

In most cases, children depend on their environment in which they live to get information about nutritious food. The more nutritious the environment is, the more information about nutritious they can access and *vice versa*. It is generally assumed that children get the information about it within three key environments which shape their eating behaviors and food preferences (Montague, 2002). The key environments are the family, home environment, the educational and care environment and the broad community environment. Besides those three key environments, there are also other factors that which shape children's eating behaviors and food preferences.

Wardle and Huon (2000) suggest that television viewing hours spent by children weekly have a significant correlation with their requests of food advertised on television as well as peer modeling of specific food choices that marked influence on what children eat.

Family and Home Environment

The family and home environment is said to have a critical influence on the establishment of food preferences and eating habits among children, but the extent to which these preferences and habits are carried into adulthood is not well understood (Montague, 2002). The family lifestyles, culture and practices have a large effect on children's purchasing and consumption decisions.

According to Montague (2002), one of the aspects of family and home environment that may influence children's eating behaviour food preferences is parental food preferences (knowledge, values, and beliefs about food) as well as role modeling by parents (particularly the mother), peers or siblings. For an example, mother's dieting behaviour and her perception of her daughter's risk of being overweight have an influence on the daughter's eating habits and relative weight.

Besides that, child-parent interactions around food including, parents restricting food seen as undesirable, using food as a reward, or promoting certain foods as treats for special occasions, and lastly parenting style also have an influence on children's eating behaviour such as strong parental control over eating situations, or pleasant interactions in eating situations. For example, children would choose fewer non-nutritious foods when they were told that their mothers would be monitoring their food choices than without such threat besides parents' exhortation 'eat up because it is good for you' (Wardle and Huon, 2000).

The third factor is television or video watching habits involving long hours of sedentary activity appear to be a component. Television viewing is thought to promote weight gain not only by displacing physical activity, but also by increasing energy intake (Montague, 2002). Children seem to consume excessive amounts of energy dense food while watching television, and their exposure to television advertising (mainly of fast food, soft drinks, sweets and sugar sweetened cereal) appears to affect dietary patterns at other times of the day. Children in recent time have become an important target for marketers (Montague, 2002) due to mainly their purchasing power which is expanding. As the result, children are growing up surrounded by advertising, branding and other forms of promotion (Hastings et al., 2003). Television viewing during mealtimes is inversely associated with consumption of products not typically advertised such as fruits and vegetable (Coon et al., 2001).

The Educational and Care Environment

Preschool and school environment are regarded as the key sites for the acquisition of dietary knowledge and habits and are considered as the place where children consume a significant proportion of their daily food intakes (Montague, 2002). The school food environment can provide nutritional information to children and therefore, can shape the children's food preferences (Kubik et al., 2003). This is due to some factors. One of them is the existence of a specific policy or set of rules within the setting around nutrition education, food service and nutrition resources. Secondly is the formal curriculum based education that the children receive about nutrition and healthy eating. Third is the food that is available in the setting, either provided or available for purchase. Fourth is the availability and promotion of physical education as an integral part of the curriculum. Fifthly, the knowledge, attitudes and practices of the staff involved. Lastly, the role of the parents in the setting and their involvement in food and nutrition issues (Montague, 2002).

The school environment was presented as a "seedbed" for nutritional education to be nurtured (Brown *et al.*, 2000). Interestingly the school was cited as being the prime medium for nutritional education by young consumers from both gender groups (Brown *et al.*, 2000). This is based on the fact that children eat daily at schools where their food preferences are continually modified (Birch, 1993). This is supported by a study in Australia showing that one-third of all children's meals come from outside home and about 52% of the meals are eaten at school (Kubik et al., 2003).

At schools, teachers, peers and canteen operators are the sources of nutritional information and have a greater potential influence on children's food preferences (Kubik et al., 2003). Research shows that children's food preferences are largely influenced by repeated exposure to food, and by the social context in which the food is offered (Hearn et al., 1997). This fact is supported by O'Dea (2003) who states that children eat what is available and allowable at home and schools. For instance, if school provides high-energy fast food to children at school, then children will learn to purchase and eat such food at school, at home, and outside the home and school (Waters and Baur, 2003). Thus, the social context and schools have to create a healthful environment through healthful food policy and canteen that will allow children to access the nutritional information indirectly from the healthful food which are provided to them.

The Broad Community Environment

Children also get information about nutrition from this environment. This type of environment has the potential to influence children's diet and eating habits. Montague (2002) suggests some aspects of this environment may affect the children's food preferences. The first aspect is the massive injections of funds into the marketing of foods and drinks that are generally high fat, high sugar foods on television (Hill & Radimer, 1997). The target groups of such advertising are children and their parents. It is very rare to see on TV advertisements about fresh fruits and vegetable industry and the public health sector to counteract this. Australia is recorded as one of the highest levels of food advertising during children's television viewing times, that is programs rated C or G and shown in the mornings and afternoons (Hill & Radimer, 1997).

The second aspect is the size of the fast food industry. Most industries target children and families as their potential customers. An economic research in Australia, conducted by BIS Shrapnel in 2001 reported that Australians spent \$6.35 billion on fast food and takeaways in the year 2000. The third aspect is the increase of sedentary lifestyles, the dominance of the car, urban design and fears for children's safety. This aspect have set the limits on the extent of children engagement in out of doors physical activity, for example by walking or cycling to school, or playing in the street or the park, (Baur 1998, Baur 2001).

Another aspect of this type environment is the price and availability of fresh fruits and vegetables in some areas (Booth & Smith, 2001). This aspect has become an obstacle to families on low incomes or in rural and remote areas to purchase healthy food at prices they can afford. Lastly is the lack of access to affordable or culturally or socially appropriate food. There are certain groups in the community that may have difficulty to purchase nutritious food. Among them are those who are living in poverty or experiencing homelessness and recent immigrants who cannot afford or find access to familiar foods (Booth & Smith, 2001).

The Influences of Nutritional Information on Young Malay Children Preference

Nutritional information does influence children preference. Many studies show throughout the globe that if children have information about nutrition, they tend to choose food with nutrition and *vice versa*. The Program Sekolah Sihat has proven the improvement in children's nutrition knowledge, attitudes and practices, as well as nutritional status. It was demonstrated by the decrease of overweight and underweight proportion among children; the significant improvement of scores in nutrition knowledge, and positive changes in several dietary habits, such as decreased occurrence of snacking and fast food consumption, as well as improvements in the choices of food and beverages made during school break. The children who had participated in the Program Sekolah Sihat made healthier choices during school break at the canteen as compared to before the program was implemented (Koon, P.B. et al., 2006).

The Integrated Nutrition Project which was conducted in Denver, Colorado, also reported a change in lunchroom dietary behavior of students in which there was increment in fruit consumption and eating of a greater variety of fruits among children as well as improved knowledge of the food guide pyramid, pyramid proportionality, whole grains and 5-A-Day (Koon, P.B. et al., 2006). Similarly, another program in Australia i.e the Outreach School Garden

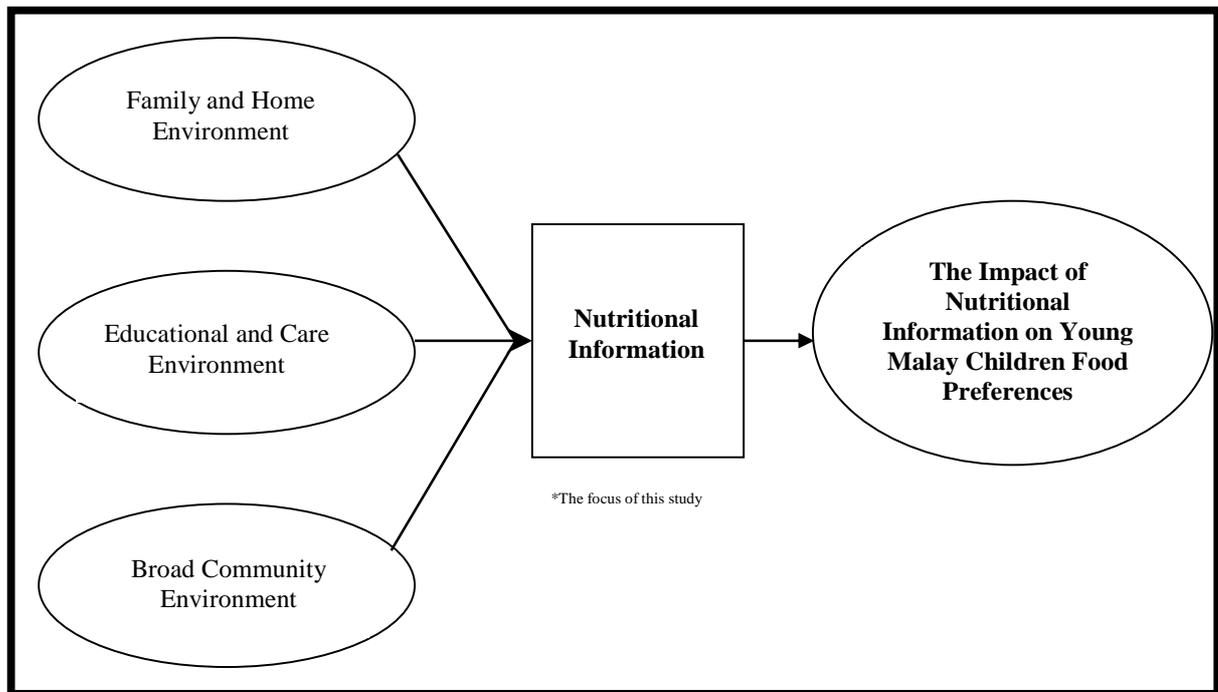
Project which employed the innovative concept of a school-based nutrition garden, proved to be successful in building the capacity of indigenous students and school staff in nutrition (Koon, P.B. et al., 2006).

Although children have access to the nutritional from those key environments, in certain circumstances, such information may not always have a positive effect to some children even though they have information about nutrition (Wardle and Huon, 2000). This happens because they might do not understand the information due to incomplete development of their intellect. Children normally regard healthiness is exclusive characteristic by its nature and alien to them.

Wardle and Huon (2000) state that in general, children are not concerned about health outcomes. Health is not important or a priority for them especially among nine years old children. This is supported by a study of 9- to 10-year-old children's expectations and food preferences. According to Wardle and Huon also, there was evidence that many of children believed that 'if a food tastes good, it must not be good for me; and if a food tastes bad, it is probably good for me'. This expectation raises the possibility of the reverse effect: 'if a food is said to be healthy then I probably won't like it'.

Lacking of nutritional information may have a direct impact on children's eating behavior if the information about food received by children are not being filtered through parents. According to survey in 2002 conducted by the American Dietetic Association Foundation's 2003 Family Nutrition and Physical Activity, many children make food-purchasing decisions for themselves and their parents do not always realize how much or what foods they are buying. In USA, it is reported that children buy about twice food from vending machines, snack bars, convenience stores, restaurants and grocery stores as often as their parents report their children buying.

THEORETICAL FRAMEWORK



Summary

Nutritional information is very crucial for human life long health beginning from their early age. The more nutritional information one acquires the better health condition he gains for his body. The consumption of foods that contains recommended nutrition from childhood will help preventing disease during adulthood, hence; ensure the lifelong of the child.

Environment plays very important role in providing nutritional information to children. The family and home environment, the educational and care environment and the broad community environment are looked as the most influential source of nutritional information to children and subsequently shape the children food preferences. If those environments are nutritious in nature, children consume more nutritious food and *vice versa*.

Beside those three key environments, the amount of hour spent on television viewing also influences children food reference since it has a significant correlation with their requests of food advertised on television. More nutritional information shall be provided to children so that they would better be able to learn healthy behaviors and make healthy choices. Those environments need to be utilized to encourage exercise, healthy choices and moderate portions in food preferences among children. However, in certain circumstances, due to the incomplete development of children's intellect that makes them unable to understand the information, not all nutritional information affects children food preferences.

RESEARCH DESIGN AND METHODOLOGY

This study looks into three areas of concern, i.e. the awareness of nutritional information among the respondents, sources of nutritional information and examining the influences of nutritional information on young Malay children's preferences. An interview session was conducted by asking the respondents some questions that relate to nutrition.

The questions are divided into three different parts. Part One is to determine the awareness among young Malay children on nutritious food. Part Two is to identify sources of nutritional information among young Malay children. Part Three is an experiment to examine the influence of nutritional information on young Malay children's preferences.

The methodologies have been divided as such due to the following reasons:

- Too many number and lengthy of questions may deviate the children's focus from responding to the questions and may discourage them from giving full cooperation during the interview session. Thus, this will cause a failure to the interview session as it will decline the interest of the children to volunteer themselves in giving feedback to this survey.
- A rational number of three parts of questions will motivate children to answer it instinctively, promptly and sincerely from their heart. As a result, it will help researcher to collect full, complete and accurate information which is needed on the spot.

Hence, based on the above reasons, the researcher felt that these three parts of questions are sufficient and most effective to support this study by using the following two methods:

First Method: Interview Session

A random selection of ninety two respondents was chosen by researcher and a brief explanation on the objective of the interview session was described before the children started answering the questions. Children were reminded that the questions needed to be answered sincerely and spontaneously. At the same time, the chosen respondents were requested to give their full support and cooperation during the survey by completing the interview session from the beginning till the end of session.

Instruments consisting of questionnaires with open ended and close questions were developed. The children perceptions and opinions towards nutritional information were measured. The result of this survey would determine the awareness, identify the sources and examine the influences of nutritional information on young Malay children's preferences.

The interview session has been conducted at International Islamic University Malaysia Educare (IIUM Educare) that provides Child Care and Kindergarten services to the university's staff.

Only children who were willing to give their full cooperation to involve in the interview session were selected. As mentioned earlier, all chosen children were requested to give their feedbacks immediately. Most of the children had given their full support and cooperation as small presents were given away to them as a token of appreciation.

The following is the dialogues that were used in the interview session:

1st Objective: To Determine Awareness among Young Malay Children Knowledge about Nutrition.

- Researcher : Good morning children!" How is everyone doing today? My name is Shuhaidah and you can call me teacher Shu. I am here to ask you a few questions about nutrition. If you can answer well, you will get a present from me. Can you do that?
- Children : Wait the reply.
- Researcher : Have you heard about nutrition? Yes/ No. If yes, write down the answer.
- Children : (Wait children response).
- Researcher : Have you heard about vitamin? Yes / No. if yes, researcher will write down the answer.
- Children : (Wait children response).

2nd Objective: To Identify Sources of Young Malay Children's on Nutritional Information

- Researcher : How do you know about nutritional information?
- Children : (Wait children response).
- Researcher : Do you know about it from your Mom, Dad, TV or Teacher?
- Children : (Wait children response).

Second Method: Experiment

The experiment was conducted by giving the children two different scenarios. Scenario 1, the researcher just showed to them two pictures of chicken nugget (Nuggets A and Nuggets B) without providing them any nutritional information. The reason was to know the children preferences without any nutritional information.

In Scenario 2, the researcher gave explanation to the children on what is the different between both of the pictures (Nuggets A and Nuggets B). The picture of Nuggets A showed nuggets and a picture of children who were sleepy and crying. Nuggets B showed nuggets and picture of healthy children who were playing at playground.

After the researcher explained in details and give nutritional information to them, the children were asked to choose which nuggets they preferred. The purpose was to know how the nutritional information influenced their food preferences.

In this experiment, the children gave good responses and feedbacks to the researcher. The researcher found that children need nutritional information before they made a decision to choose their foods.

The following is the dialogue that was used in the experiment session:

3rd Objective : To examine the influences of nutritional information on young Malay children's preferences

Researcher : My young children, are you ready for the next question?

Children : (Wait children response).

Researcher : Do you like chicken nuggets?

Children : (Wait children response).

Researcher : I have two types of chicken nuggets. Chicken Nugget A and B
(Show the A4 size picture)

Scenario 1

Researcher : Which one would you like to buy - chicken nugget A or chicken nugget B?

Children : (Wait for children response).

Scenario 2

Researcher : Let me explain about chicken nuggets A. This nuggets does not contains nutrition. If you eat this you will feel sleepy and tired.

Researcher : But, chicken nuggets B have good nutrition like vitamin. If you eat this you will feel healthy and cheerful. You can go out and play with your friends. Do you understand?

Children : (Wait children response).

Researcher : Which one do you like to buy? Chicken nuggets A or nuggets B?

Children : (Wait children response).

Sample

The sample comprised of ninety two children aged five and six years old. All children were mainly from different family backgrounds.

Time Allocation

The study started in June 2008 and it took six months to complete the data collection and data analysis.

Data Analysis

In this study, the Statistical Package for the Social Science (SPSS Version 12.0) was used to analyze the data. The data were examined using frequency analysis. Frequency analysis was used to achieve the three objectives of the study:

1. Determining awareness among young Malay children knowledge about nutrition.
2. Identifying sources of young Malay children's on nutritional information.
3. Examining the influence of nutritional information on young Malay children's on food preferences

DATA ANALYSIS

There was a 100% response rate from 92 respondents during the interview and experiments session.

<i>Gender</i>	<i>Frequency N=92</i>	<i>Percent (%)</i>
<i>Boy</i>	51	55.4
<i>Girl</i>	41	44.6
<i>Age</i>	<i>Frequency N=92</i>	<i>Percent (%)</i>
<i>5 years</i>	47	51.1
<i>6 years</i>	45	48.9

Table 1: Demographic Profile of Respondents

Table 1 shows the demographics characteristics of respondents according to the age group and gender only. In term of gender, 55.4 percent were boy and 44.6 percent were girls. From the total of 92 respondents, 51.1 percent were five years old respondents while 48.9 percent were 6 years old.

First Objective: To Determine the Awareness among Young Malaysian Children Knowledge about Nutrition

<i>Description</i>	<i>Percent (%)</i>
<i>Aware</i>	28.3
<i>Unaware</i>	71.1

Table 2: Awareness on Nutritional Information

Table 2 shows that 28.3 percent of the respondents were aware about word of nutrition and 71.1 percent were not aware about it.

<i>Description</i>	<i>Percent (%)</i>
<i>Have knowledge about vitamin</i>	<i>59.8</i>
<i>Source of Information</i>	<i>Percent (%)</i>
<i>Own self</i>	<i>61.0</i>
<i>Parents, teacher and media</i>	<i>39.0</i>

Table 3: Having Knowledge about Vitamin and it Sources

Table 3 shows that 59.8 percent of the respondents had knowledge about vitamin. They represented more than half of 92 respondents. In terms of the source information, 61 percent of them know about vitamin by themselves while 39 percent getting the information about vitamin from their parents, teacher, and mass media.

Second Objective: To Identify the Sources of Young Malay Children's on Nutritional Information

<i>Description</i>	<i>Percent (%)</i>
<i>No sources</i>	<i>73.9</i>
<i>Sources (Parents, teacher and media)</i>	<i>26.1</i>

Table 4: Sources of Nutritional Information

Table 4 shows 73.9 percent did not know about nutritional information while 26.1 percent knew about nutritional information from parents, teacher and media, especially television.

Third Objective: To Examine the Influences of Nutritional Information on Young Malay Children's Food Preferences

<i>Scenario 1</i>	<i>Percent (%)</i>
<i>Nuggets A</i>	<i>52.2</i>
<i>Nuggets B</i>	<i>47.8</i>

Table 5: Scenario 1 (Without nutritional information)

Based on the experiment conducted in which nutritional information was not informed to them, 52.2 percent children have chose Nuggets A while 47.8 percent chose Nuggets B.

<i>Scenario 2</i>	<i>Percent (%)</i>
<i>Nuggets A</i>	<i>2.2</i>

<i>(Nutritional information not provided)</i>	
Nuggets B <i>(Nutritional information provided)</i>	97.8

Table 6: Scenario 2 (With nutritional information)

In Scenario 2, 2.2 percent chose Nuggets A (Nutritional information not provided) and 97.8 percent chose Nuggets B (Nutritional information provided). This shows that children would choose nutritious foods if they were provided with nutritional information on foods.

CONCLUSION AND RECOMMENDATIONS

This chapter provides conclusions of the interview session in accordance with all of the objectives for this research as mentioned before. It begins with the summary of the main findings and followed by the limitation of the study, some suggestions for future research in this area and the conclusion of the study.

Major Findings of the Study

This research has investigated awareness among young Malay children on nutritious food, whether children are aware about nutrition and vitamin. Besides, this study also has succeeded in identifying sources of nutritional information among young Malay children's in which the children know about nutritional information from their parents, teachers and media especially television. Apart from that, the study also has successfully examined the influences of nutritional information on young Malay children's preferences.

First Objective: To Determine the Awareness among Young Malay Children Knowledge about Nutrition

From the study, I can see that majority of the young Malay children were not aware of the importance of nutritional information. Only 28.3 percent of children know about it. It might be due to the reason that they come from living environment that give less emphasis on the importance of nutrition.

Second Objective: To Identify the Sources of Young Malay Children's on Nutritional Information

The study showed that majority of the children did not know about nutritional information with the percentage of 73.9 percent. It might be due to the less exposure to the nutritional information at school, home, broad community environment as well as peers. It also tells us that teachers, parents, siblings, community and peers do not play effective roles in disseminating nutritional information to the children.

Third Objective: To Examine the Influences of Nutritional Information on Young Malay Children's Food Preferences

The study was conducted by showing two different pictures (Nuggets A and Nuggets B) to children. Nuggets A without nutritional information while Nuggets B with such information. With the assistance of questionnaires that were developed to predict the young Malay children preferences in choosing the food, children were asked which picture that they preferred. Surprisingly, 97.8 percent chose Nuggets B. This shows that children would choose nutritious foods if they were provided with nutritional information on foods. The result proved that children need information to make good decision in their food preferences.

It is hoped that the findings of this study may assist the food industry in what they can produce and how they want to promote the product. This study will help them to market their products effectively. Besides helping the industry, this study also give beneficial information to parents, teachers, media-mass and government in improving their ways or techniques to create awareness among children. Thus, this nutritional information is really important nowadays for the creation of healthy society.

Limitation of Findings

There is limitation to the findings of the study that should be acknowledged. The limitation is that the study took place in one day in one childcare with small number of respondents. It would be useful to conduct the study on a huge number of respondents and perhaps to look at moderating effects of children social background. Thus, the findings of the study might not sufficient to provide information to the industry, government, parents and community at large. Therefore, more extensive study is highly needed in the future.

Direction of Future Study

Further research could cover different races and kindergarten.

CONCLUSION

This study has shown that in order to educate children to eat nutritious food, necessary information need to be provided to them accordingly. Parents, teachers and media shall play their roles in providing such information. The findings from the survey also reveal that young Malay children have information about nutrition but it is not sufficient to them. More nutritional information is highly needed by young Malay children.

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ORGANIZATIONAL, ENVIRONMENTAL AND DEMOGRAPHIC VARIABLES OF EMPLOYEE TURNOVER INTENTION

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Purpose - This paper explores the factors and causes responsible for employee turnover. Employee turnover has substantial cost for the organization as it is a loss of social capital.

Methodology - The data has collected from 252 first line managers and supervisors of textile sector of Pakistan for ascertaining the reasons of employee turnover. The statistical tools employed to analyze the data are correlation and regression analyses.

Findings - The determinants of employee turnover intentions have been divided into three factors that are organizational, environmental, and demographic. Organizational (job) related factors are more responsible as compare to other factors of employee turnover

Practical Implications - Paper suggests guidelines for the Human Resource Managers for controlling employee turnover such as job related factors are more important for the managers to control employee turnover intention.

Originality/ Value - Khatri and his colleagues (2001) model adapted, tested and extended the model with job stress variable. Model extended and Empirical evidence received from Textile sector of Pakistan.

Key Words – Employee Turnover Intention, Organizational Factors, Environmental Factors and Demographic Factors

Paper Type – Research Paper

An employee is a valuable resource for the organization. An employee performs tasks and duties for the accomplishment of organizational goals. Turnover can be defined as a voluntary termination of membership of an employee of the organization. (Morrell et al 2001). Turnover is simply defined as the intention of the worker to leave his or her job for another job that meets the workers needs. Turnover intention may be described as “attitudinal (mind process of quitting), decisional (intention to leave), & behavioral (exploring a new job) practices of voluntary turnover” (Khatri, 2000; Sager et al., 1998). Organization runs for the earning profit but may suffer when employees leave the organization. Turnover has a variety of effects on the organization itself, the individual (employee) and wider society who is associated with him (Moblely 1982). Employee turnover encounters major cost, in terms of direct costs (hiring and replacement, and time management), and may be more important in terms of indirect costs (work spirits, costs of learning, work burden on the rest of the employee, work quality, organizational memory) and the loss of social capital (Dess and Shaw, 2001).

Employee quit is a serious issue for many Asian countries for instance Singapore, Malaysia, South Korea, and Hong Kong (Syrett, 1994; Barnet, 1995; Chang, 1996; Khatri 2001). The importance of workforce turnover has been identified as a sustainability issue by the Global

Reporting Initiative (GRI), which has incorporated turnover as a focal point of social performance indicator in its Sustainability Reporting Guidelines (GRI 2002).

Employee turnover is a cause of restless and disturbed nights of the HR managers in the textile sector of Pakistan. The textile sector is selected due to two reasons. First of all, there is a horrifying employee turnover rate i.e. 12% (Majid et al 2000). Second reason is that Textile sector contributes as a Pakistan's largest employer as well as main sector for the economy having round about 68% of total export earning (Bukhari 2005), and represents the largest sector of Pakistan. Therefore, this study has been designed and entitled as "The Determinants of Employee Turnover in Textile Sector". The focus of the study is to find out the reasons of employee turnover. Why employees leave the organization and what are their intentions to leave?

This study has five main objectives. First and foremost objective is to explore the reasons and intentions of employee turnover. Second one is to differentiate between Job Hopping and Turnover intention. Ghiselli (1974) was the 1st one who gave the idea related to job-hopping, and he expressed as 'hobo syndrome'. He described that hobo syndrome as "the periodic itch to move from a job in one place to some other job in some other place". There are almost fifteen hundred investigations in the employee-turnover literature (Shaw et. al, 1998), but job-hopping reported in a few researches in past studies. Third objective is to know about the current pattern of textile turnover. The large numbers of turnover studies were investigated in Western Organization framework (Khatri et. al, 2000) and there is a vast difference in social, economic, and cultural environments. Therefore, second last objective is to find out the implications in the Asian context.

The last objective is to compartment & partitioning the effects of controllable factors (e.g., job satisfaction & organizational commitment), uncontrollable factors (e.g., alternative employment opportunity & job-hopping), and demographic factors (e.g., age & income), on turnover intention. The compartment of the outcomes would diagnosis the turnover issue in a proper way.

THEORETICAL FRAMEWORK & HYPOTHESIS

There are two schools of thoughts on employee turnover research: psychological school and the labor market school. The psychological school involves with those matters basically related to psychological accounts for instance job satisfaction, job stress organizational commitment, & organizational climate. The labor market school explains the issues such as demand & supply, availability of job opportunities or perceived alternatives, and job search. Both schools of thoughts on turnover studies are not able to predict and explain the sufficient reasons and measures for the organization to manage employee turnover effectively (Morrel et al 2001).

The study framework is exhibited in Figure 1. It incorporates 3 groups of independent variables which include organizational factors, demographic factors and environmental factors. Organizational factors are the Job related & psychological factors i.e. job satisfaction, job stress, and organizational commitment. Demographic factors are age, education; job tenure Uncontrollable factors are the environmental or labor market factors i.e. alternative job

opportunities & job hopping. The dependent (study) variable is the Turnover Intention. These relationships incorporated the ideas of Khatri et al, (2001).

Actually I have tested the model of Khatri and his colleagues (2001) as well as extended the model by adding another variable job stress.

This model has been presented in Figure 1.

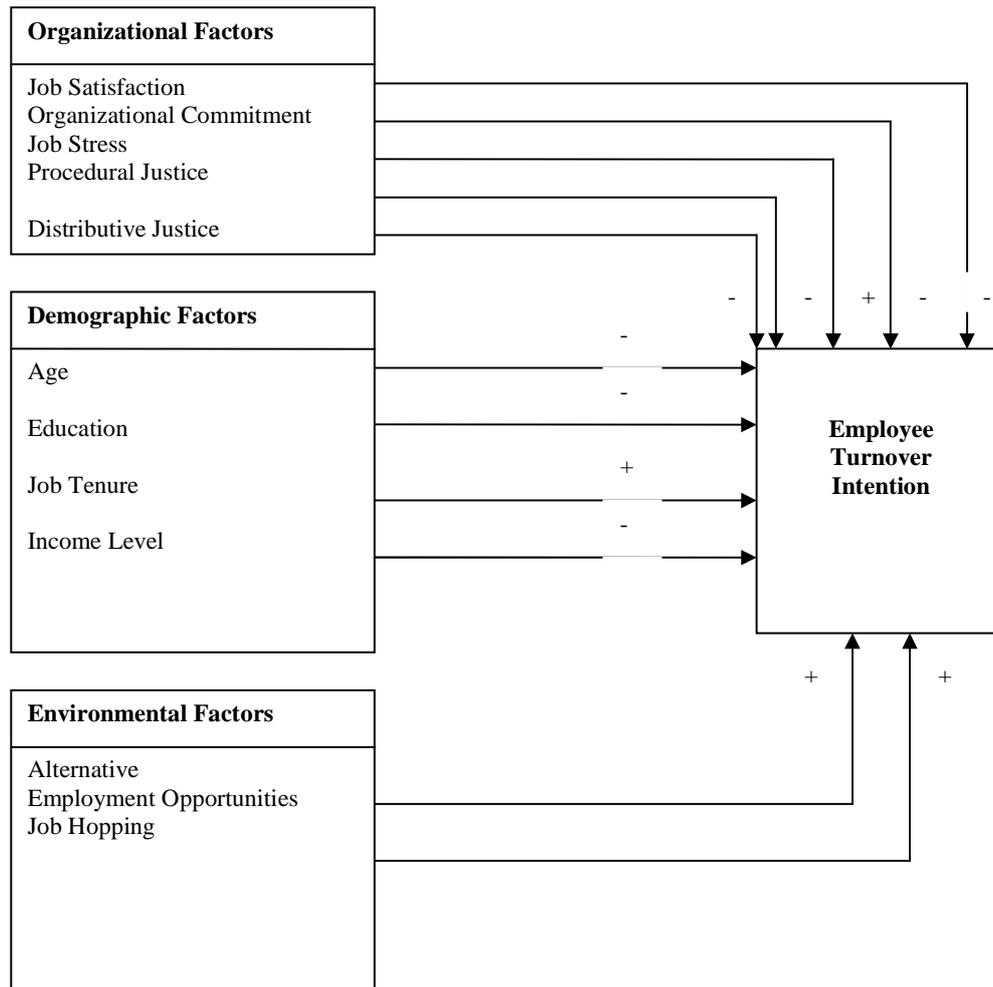


Figure 1: The Determinants of Employee Turnover Intention (Extended model)

REGRESSION MODEL

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \beta_8X_8 + \beta_9X_9 + \beta_{10}X_{10} + \beta_{11}X_{11} + \beta_{12}X_{12} + \beta_{13}X_{13}$$

Y = Turnover Intention

β_0 = Constant

X_1 = Satisfaction with Pay

X_2 = Satisfaction with supervision

X_3 = Satisfaction with working conditions

X_4 = Organizational commitment

X_5 = Job Stress

X_6 = Procedural Justice

X_7 = Distributive Justice

X_8 = Alternative Employment Opportunities

X_9 = Job Hopping

X_{10} = Age

X_{11} = Education

X_{12} = Job Tenure

X_{13} = Income Level

E = Standard Error

$\beta_1, \beta_2, \beta_3, \dots, \beta_{13}$ = Coefficients

Mobley (1982) indicates that there are four primary determinants of turnover: Job satisfaction-dissatisfaction; expected utility of alternative internal work roles; expected utility of external work roles; and non-work values and contingencies.

Job Satisfaction depicts how much happy and comfortable an employee with the job. There are multiple and wide range of causes which may affect an employee's job satisfaction level; for example pay and benefits, quality of the working conditions, the fair perceived promotion practice in an organization, socialization, leadership, & job itself.

Falkenburg and Schyns (2007) describe job satisfaction as a behavioral cycle; as a cause of behavior consists of different aspects of the job and the work related satisfaction. Satisfaction is the level by which workers love their job. There is an inverse association between job satisfaction and withdrawal behavior.

Job satisfaction can be divided into three dimensions: satisfaction with pay, working condition and supervision. The association between job satisfaction and turnover are absolutely investigated variables in literature and research. Several researches report a negative relation between job satisfaction and turnover (such as Khatri et al (2001), Bluedorn (1982), Price (1977), Arnold and Feldman (1982), Mobley (1982), Cotton and Tuttle (1986). Workers have more inclination to leave when they are dissatisfied in an organization.

Koh and Goh (1995) investigate the link between job satisfaction and employee intention to quit in Singapore and classified job satisfaction into eight categories: work load, co-workers,

working conditions, monetary rewards, supervision, company identity, kind of work, and career future.

Khatri et al (2001) have reported job satisfaction into three perspectives; satisfaction with pay, supervision, and working condition. There is a negative relationship among all the three dimensions of job satisfaction in the study of employee turnover intention. Thus:

Hypothesis 1: Job satisfaction is negatively associated with turnover intention.

Hypothesis 1a: Satisfaction with pay is negatively associated with turnover intention.

Hypothesis 1b: Satisfaction with work is negatively associated with turnover intention.

Hypothesis 1c: Satisfaction with supervision is negatively associated with turnover intention.

Organizational Commitment is the worker's emotional affiliation and association to the organization. Organizational commitment can be distinguished with some other job-related attitudes, such as Job Satisfaction, and Organizational Identification.

According to Meyer and Allen's (1991) there are three-constituent commitment model, past studies revealed that employees have three types of "Mind Sets" which may illustrate commitment level of an employee in any type of the organization. Affective commitment has positive emotional affiliation to the organization by an employee; continuance commitment is the someone's commitment with the organization because employee realizes huge costs of loss of organizational membership. Normative commitment is the someone's commitment to stay and remains in an organization due to the sense of feelings of responsibility.

Aryee et al.'s (1991) research on accountancy employees in Singapore also demonstrated an inverse relationship between organizational commitment and intention to quit. In the same way, Wong et al. (1996) uncovered that organizational commitment was a robust turnover predictor in their longitudinal study of almost 400 Hong Kong graduate students in. Numerous other researchers (Kim et al, 1996; Ben-Bakr et al., 1994; Arnold & Feldman, 1982; Tett & Meyer, 1993) also reported organizational commitment as an essential turnover predictor.

Van Breukelen et al (2004) point out that organizational commitment and job satisfaction are negatively associated with intentions to leave (turnover). Therefore

Hypothesis 2: Organizational commitment is negatively associated with turnover intention.

Job stress has gained increasing importance in the recent turnover literature. NIOSH (2008) defines "Job stress is the physical & emotional responses which may reflect when the job requirements do not match with the capabilities, competencies, resources, or needs of the worker. Stress also happens & reflects when the circumstances have high demands and the worker has little control over it. Job stress may lead to harmful poor health and injury".

Lucy et al (2004) investigate the reasons for intentions to quit & findings of the study suggest that intentions to leave is mainly influenced by the feeling of stress, which caused by job stressors, job dissatisfaction, and lack of commitment to the organizational job. Job stressors such as workload, and role ambiguity, which are the causes that stimulate the series of emotional states. Managers should observe employee work burden, and the relationship

between supervisor and subordinate in order to minimize job stress and properly handle job stress.

Price (2001) defines Job stress is a mental and physical situation by which job tasks are not easy to perform. There are four types of stress: workload (burden of work, quantity of work effort expected by a job), role conflict (inconsistent job obligation), role ambiguity (unclear job obligations), and lack of resources to accomplish job tasks).

Janssen Peter et al (1999) suggest that emotional fatigue is basically envisaged by a lack of societal support from coworkers, and may be the work pressure due to work and time constraints. Stress related problems among workers increase high turnover and absenteeism (Mikkelsen et al, 2000). Thus

Hypothesis 5: Job stress is positively associated with turnover intentions.

Folger & Greenberg (1985) describe that there are two types of justice in organizational environment: first one is distributive justice, which explains the fairness of the results an employee obtains; and second one is procedural justice, which explains the transparency in the process used to conclude the results and output. Prior research generally on western samples has revealed that organizational justice negatively related to turnover intention. (Price & Mueller, 1986; Berg, 1991; Dailey & Kirk, 1992; Randall & Mueller, 1995;).

Hypothesis 3: Procedural justice is negatively associated with turnover intention.

Hypothesis 4: Distributive justice is negatively associated with turnover intention.

Environmental factors are the uncontrollable factors which include Job-hopping and Alternative employment opportunities. These factors related to labor market school of thought (Morrel et al 2001). Job hopping and Alternative employment opportunities included in theoretical frame work (Figure 1).

Job-hopping means frequently movement of job from one place to another place without any specific reason. Ghiselli (1974) defines job-hopping, as 'hobo syndrome' which means and includes 'the periodic itch to move from a job in one place to some other job in some other place'. Employees searching alternative jobs even they have secured job (Chew, 1993).

Job hopping is one of the most important factors of employee turnover. Some employees leave due to social influence from peer/colleagues and some employees leave the organization as a fun and no apparent reason. Job hopping is positively related with turnover intention (Khatri et al 2001). Thus:

Hypothesis 6: Job hopping is positively associated with turnover intention.

Alternative employment opportunity is another uncontrollable and labor market variable. Opportunity means of alternative jobs available in the market. The larger alternative employment opportunities exist in the environment, more chances of awareness among the employees, and then they evaluate cost and benefit analysis and have intentions to switch jobs (Price 2001).

Past literature suggests that there is a positive association and link between alternative employment opportunities and employee turnover intention (Khatri et al, 2001; Hulin et al, 1985).

Hypothesis 7: Alternative employment opportunity is positively associated with turnover intention.

Demographic factors have strong and constant relationship with employee intention to quit in previous employee-turnover literature which contains gender, level of income, age, level of education, job tenure, and job category (key post or non-managerial post). Most of the turnover researches have described inverse relationship between intention to quit and demographic variables which include, age, income level and job tenure, (Mobley et. al, 1979; Arnold & Feldman, 1982; Price & Mueller, 1986; Cotton & Tuttle, 1986; Gerhart, 1990; Weil & Kimball, 1995, Wai & Robinson, 1998).

Hypothesis 8: Demographic factors are associated with turnover intention.

Specifically:

H 8a: Age is negatively associated with turnover intention.

H 8b: Level of education is positively associated with turnover intention.

H 8c: Tenure of an employee in a company is negatively associated with his or her

RESEARCH METHODOLOGY

The sample comprised 252 first line managers and supervisors from Textile sector of Pakistan. The textile sector was divided into five broad categories i.e. Ginning, Spinning, Weaving, Finishing, and Garments. The data was collected from first line managers & supervisors of spinning, weaving, and finishing industries on the basis of two stage sampling. In first stage, constructed strata on the basis of spinning, weaving, and finishing organizations of Lahore, Pakistan and then selected 50 organizations by the simple random sampling. In the second stage, first line managers and supervisors selected from the above 50 organizations.

The data was collected by physically and self administered survey (Questionnaire). The questions were asked on five point likert scale from the respondents. The questionnaire consisted of three sections i.e. controllable factors, uncontrollable factors and Turnover intention. Job satisfaction, organizational commitment, job stress, job hopping, and alternative employment opportunities were the independent variables. Turnover intention was the dependent variable.

To increase the response rate, the employees were informed regarding the research objective and confidentiality. The response rate was 84% (252/300) and most of the questionnaires filled by visiting the organization physically and some questionnaires dispatched to the organizations. The respondents were 21% female and 79% male. The participants' ages ranged from 20 to 40 years.

MEASURES

Controllable variables included job satisfaction, organizational commitment, and Job stress. Job satisfaction was measured on five point likert scale and this variable divided into three dimensions i.e. satisfaction with pay, working condition, and supervision. Three items were used for measuring each dimension. These were adapted from the Minnesota Satisfaction Questionnaire (Weiss et al., 1967) and the Index of Organizational Reaction Questionnaire (Smith, 1976). The reliabilities of three scales showed satisfactory with Cronbach alphas of 0.63, 0.84, and 0.65, respectively, for satisfaction with pay, working condition and supervision.

Organizational Commitment Questionnaire (OCQ) was used to measure employee commitment level, developed by Khatri and his colleagues (Khatri et al, 1974). Eight items were used for the measurement of organizational commitment. The scale showed a good reliability i.e. 0.81. Job stress four items were used to measure, developed by Vigoda and Kapun (2005).

The job hopping was measured on three item scale which already developed by Khatri and his colleagues (Khatri et al 2001). The scale showed reliability i.e. Cronbach alpha 0.71. The perceived alternative employment opportunities scale contained six items and was adopted by Michaels and Spector (1982), Arnold and Feldman (1982), Billing and Wemmerus (1983) and Modey et al (1984). The scale showed good reliability i.e. 0.76 and single factor in factor analysis.

The three item turnover intention scale from the Michigan Organizational Assessment Questionnaire (Cummann et al, 1979) and two items from Bluedorn (1982) were used. The Cronbach alpha was 0.84 in the study.

ANALYSES AND RESULTS

The statistical tools employed to analyze the data were Pearson's correlation and regression analyses by using SPSS. Pearson's correlation is a reasonable and familiar means of assessing linear association between variables. The correlation coefficient provides a measure to establish the strength. This study has established a linear relationship between dependent variable (Employee turnover intention) and all other independent variables just like job satisfaction. The relationship and association has been explained in table 1 and 2 at 99% & 95% confidence level. There is a strong relationship exist between the variables at 0.01 or 99% level of confidence.

<i>Table 1</i>	<i>Satisfaction with Pay</i>	<i>Satisfaction with work</i>	<i>Satisfaction with supervision</i>	<i>Procedural Justice</i>	<i>Distributive Justice</i>	<i>Organizational Commitment</i>	<i>Job Hopping</i>	<i>Job Stress</i>	<i>Alternative Employment Opportunity</i>	<i>Age</i>	<i>Education</i>	<i>Job Tenure</i>	<i>Income</i>	<i>Turnover Intentions</i>
<i>Satisfaction with Pay</i>	1													
<i>Satisfaction with work</i>	.438(**)	1												
<i>Satisfaction with supervision</i>	.330(**)	.427(**)	1											
<i>Procedural Justice</i>	.335(**)	.373(**)	.435(**)	1										
<i>Distributive Justice</i>	.498(**)	.472(**)	.484(**)	.483(**)	1									
<i>Organizational commitment</i>	.323(**)	.176(**)	.287(**)	.295(**)	.378(**)	1								
<i>Job Hopping</i>	-.112	.070	-.121	-.151(*)	-.033	-.040	1							
<i>Job Stress</i>	-.222(**)	-.218(**)	-.214(**)	-.259(**)	-.228(**)	.003	.070	1						
<i>Alternative Employment Opportunity</i>	-.102	-.055	-.078	-.041	-.084	-.099	.045	.095	1					
<i>Age</i>	.090	.120	.130(*)	.041	.101	.130(*)	-.078	-.034	-.158(*)	1				
<i>Education</i>	.001	-.081	.005	-.103	-.064	.085	-.032	.069	.037	-.336(**)	1			
<i>Job Tenure</i>	.133(*)	.189(**)	.096	-.010	.116	.188(**)	.126(*)	-.046	-.147(*)	.447(**)	-.137(*)	1		
<i>Income</i>	.226(**)	.175(**)	.286(**)	.148(*)	.237(**)	.277(**)	-.124(*)	-.038	-.109	.336(**)	.171(**)	.465(**)	1	
<i>Turnover Intentions</i>	-.409(**)	-.378(**)	-.340(**)	-.343(**)	-.342(**)	-.266(**)	.223(**)	.266(**)	.223(**)	-.158(*)	-.047	-.111	-.188(**)	1
<i>Sig. (2-tailed)</i>	.000	.000	.000	.000	.000	.000	.000	.000	.000	.012	.455	.079	.003	.
<i>N</i>	252	252	252	252	252	252	252	252	252	252	252	252	252	252

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

<i>Independent Variables</i>	<i>Turnover Intentions (Dependent variable)</i>
<i>Satisfaction with pay</i>	<i>-.409(**)</i>
<i>Satisfaction with work</i>	<i>-.378(**)</i>
<i>Satisfaction with supervision</i>	<i>-.340(**)</i>
<i>Procedural justice</i>	<i>-.343(**)</i>
<i>Distributive justice</i>	<i>-.342(**)</i>
<i>Organizational commitment</i>	<i>-.266(**)</i>
<i>Job stress</i>	<i>.266(**)</i>
<i>Job Hopping</i>	<i>.223(**)</i>
<i>Alternative Employment opportunity</i>	<i>.223(**)</i>
<i>Age</i>	<i>-.158(*)</i>
<i>Education</i>	<i>-.047</i>
<i>Job tenure</i>	<i>-.111</i>
<i>Income</i>	<i>-.188(**)</i>

Table: 2

****** Correlation is significant at the 0.01 level (2-tailed).

***** Correlation is significant at the 0.05 level (2-tailed).

Employee turnover intention is a dependent variable. Job satisfaction, organizational commitment, procedural justice, distributive justice, Job stress, Job hopping, Alternative employment opportunities and demographic factors are the independent variables in the study of 252 first line managers and supervisors of textile sector. Satisfaction with pay, working condition, and supervision, has a strong negative correlation with employee turnover intention i.e. -0.409, -0.378, -0.340 at a $p < 0.01$ level of significance respectively. Procedural justice, distributive justice and organizational commitment also have a negative correlation with employee turnover intention at a $p < 0.01$ level of significance i.e. -0.343, -0.342, & -0.266. There is a positive correlation between job stress and employee turnover intention i.e. 0.266 at a $p < 0.01$. Job hopping and Alternative employment opportunities also have a positive relationship with employee turnover intention i.e. 0.223 and 0.223 respectively at a $p < 0.01$ level of significance. Age and Income have strong negative relationship with turnover intention at a $p < 0.01$ level of significance i.e. -0.158, & -0.188.

So, Pearson's Correlation shows that job satisfaction is negatively associated with turnover intention. It means satisfaction with pay, working condition, and supervision has strong negative association with turnover intention. When job satisfaction increases, employee turnover intention decreases Organizational commitment is also negatively associated with turnover intention. Job satisfaction leads to organizational commitment. Whenever, organizational commitment will increase, employee turnover intention will also decrease. Procedural and distributive justice has strong negative association with turnover intention. Job stress is positively associated with turnover intention. It means that when job stress conditions just like workload increases, employee turnover also increases. Job hopping and alternative employment opportunity are also positively associated with turnover intention. When bad habits develop just like switching job with no apparent reasons or due to friends and colleagues then turnover intention also increases.

Controllable factors (job satisfaction, organizational commitment, and job stress) are highly correlated with turnover intention as compare to uncontrollable factors (job hopping and alternative employment opportunity). It means that controllable (organizational) factors are more dominant and

play very important role in employee turnover intention. When employee dissatisfied, job stress, and has a lack of interest and concern with organization then employee has more intention to switch job.

REGRESSION ANALYSIS

Regression analysis explains the variance and causal relationship between independent and dependent variables.

“B” lists the regression coefficients (Table 3) for the independent variables i.e. satisfaction with pay, nature of work, supervision, procedural justice, distributive justice, organizational commitment, job hopping, job stress, alternative employment opportunities, age, education, job tenure and income at $P < 0.01$ level of significance. These represent the slope and Y-intercept for the regression line. There is one constant in table 3 that is 4.289 while other regression coefficients represent the slope and Y-intercept -0.175, -0.223, -0.067, -0.110, -0.010, -0.098, 0.155, 0.132, 0.197, -0.108, -0.123, -0.014, and 0.059 respectively.

All the independent variables are included in the regression equation except satisfaction with supervision and job tenure. This implies that satisfaction with pay, working condition, organizational commitment; job stress, job hopping, alternative employment opportunities and age have strong impact on employee turnover intention.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.289	.519		8.264	.000
	Satisfaction with Pay	-.175	.066	-.171	-2.642	.009
	Satisfaction with work	-.223	.075	-.196	-2.980	.003
	Satisfaction with supervision	-.067	.068	-.064	-.979	.328
	Procedural Justice	-.110	.068	-.106	-1.617	.001
	Distributive Justice	-.010	.074	-.010	-.136	.002
	Organizational commitment	-.098	.067	-.089	-1.461	.050
	Job Hopping	.155	.051	.171	3.067	.002
	Job Stress	.132	.060	.122	2.180	.030
	Alternative Employment Opportunity	.197	.072	.147	2.746	.006
	Age	-.108	.068	-.103	-1.594	.010
	Education	-.123	.062	-.121	-1.995	.047
	Job Tenure	-.014	.059	-.016	-.242	.809
Income	-.059	.078	-.051	-.750	.004	

Table 3 (Coefficients)

Regression equation explains the variance and factors responsible for employee turnover intention. Satisfaction with pay is responsible in employee turnover intention is – 17.5%, -22.3% satisfaction with work, -6.7% satisfaction with supervision, -11% procedural justice, 1% distributive justice, -9.8% organizational commitment, 15.5% job hopping, 13.2% job stress, 19.7% Alternative employment opportunities, -10.8% age, -12.3% education, 1.4% job tenure and 5.9% income.

The values listed under “Beta” represent an alternative set of coefficients that would be used instead if all variables were first converted to Z-scores.

Satisfaction with pay is negatively associated with turnover intention and regression co-efficient is -0.175. Satisfaction with nature of work, and supervision also negatively associated with turnover intention and regression co-efficient is -0.223, -0.067, respectively. Procedural and distributive justice is negatively associated with turnover intention and has regression co-efficient -0.110, and -0.010 respectively. Organizational commitment is negatively associated with turnover intention and

regression co-efficient is -0.098. Job stress, job hopping and alternative employment opportunities are positively associated with turnover intention and their regression co-efficient are 0.132, 0.155, and 0.197 respectively.

Model	R	R Square	Adjusted R Square
1	.729	.703	.692

Table 4 Model Summary

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	72.126	13	5.548	19.747	.000(a)
	Residual	135.477	238	.569		
	Total	207.603	251			

Table 5 ANOVA

For the purpose of identifying the important variable influencing the dependent variable this research has used the regression analysis. The regression analysis of the used model has employee turnover intention as dependent variable.

It is evident from the results that coefficient of Independent variables and employee turnover are significant. It shows that there are strong relationship exist.

The value of R-squared (R^2) = 70.3 % and Adjusted R^2 is almost 69.2%. This indicates that independent variables bring sufficient variation in the dependent variable i.e. employee turnover intention, only 29.7 % variation is caused by other variables. Larger values of R indicate stronger relationships.

$$0 \leq R^2 \leq 1.00$$

Table 5 summarizes the results of an analysis of variance. F value shows that the overall model is statistically significant and Independent variables predict the variation in the dependent variable employee turnover intention.

	N	Minimum	Maximum	Mean	Std. Deviation
Turnover Intention	200	1	5	3.10	.893
Valid N (list wise)	200				

Table 6-A (Male Turnover Intention)

	N	Minimum	Maximum	Mean	Std. Deviation
Turnover Intention	52	1	5	2.79	.936

Valid N (list wise)	52				
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Table 6-B (Female Turnover Intention)

Table 6-A and Table 6-B show that Male has greater intention to leave as compare to female because male turnover has mean value 3.10 and female turnover has mean value 2.79 which shows that male has more intention to switch as compare to female.

All hypotheses have strong support and significant in our study but satisfaction with supervision and Job tenure is not significant due to some differences in economic, social, and cultural environment of Pakistan textile sector.

DISCUSSION AND CONCLUSION

Employee turnover intention is a major issue for the human resource managers and has a significant cost of hiring and replacement. Employee has intention to switch when he is dissatisfied from his pay, supervision and nature of work. A satisfied employee is more committed to the organizational work and has strong loyalty and affiliation with the organization. Job stress is the mental tension caused by the workload, working condition, and lack of means to perform job. So, job stress is another reason for switching job from one to another organization. Job hopping and alternative employment opportunities are the environmental factors who responsible for employee turnover intention. Demographic factors are also one of the reasons of employee turnover intention.

Job satisfaction and organizational commitment are negatively associated with turnover intention. Job stress, job hopping and alternative employment opportunity is positively associated with turnover intention.

Controllable or organizational factors (job satisfaction, organizational commitment, job stress, procedural justice) are more responsible for the intentions of employee turnover as compare to uncontrollable or environmental factors (job hopping, and alternative employment opportunity).

The respondents are 21% female and 79% male. The participants' ages ranged from 20 to 40 years. Average job tenure and income of the respondents are 2-3 years and Rs.10, 000 to 20, 000 respectively. Age and Education are negatively associated with turnover intention. Age, and education increase, employee turnover intention will decrease. Males have more intention to leave as compare to females.

Human resource personnel can manage employee turnover by providing competitive pay package, inspirational supervision, and congenial working condition which ultimately produce committed and loyal employees. Job stress can be managed by proper division of work and counseling service for the solution of stress related problems. Demographic factors should be considered while selection of an employee because they have effect on employee's intention to switch one organization to another organization.

The researchers can extend this research by adding more variables just like organizational change and its impact on employee turnover intentions, managers' leadership style and employee turnover intention. They can compare this study into two dimensions manufacturing vs. service sector employees by increasing sample size which will give broader view and comprehensive frame work of employee turnover intention.

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CRISIS RELATED MANAGEMENT ACCOUNTING LITERATURE:

A CONTENT ANALYSIS FOR TURKEY

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Purpose – The purpose of our paper is to review the crisis related management accounting literature in Turkey in order to perform a content analysis. Turkey is no stranger to financial crises; it is not unusual for Turkish firms to be faced with a local or global financial crisis almost every few years. Yet, the firms that manage to survive are those who can sustain their competitiveness amid the financial crisis. Consequently, we see a reflection of this trend in the management accounting research area in Turkey.

Design/methodology/approach – We review three Turkish journals with an accounting focus and a broad readership base made up of academics, practitioners, and regulators. We look for papers on crisis related management accounting topics published during the last decade. We then conduct a detailed content analysis including research areas, keyword/topics, research methods and author affiliations.

Findings – A preliminary analysis reveals that 153 out of a total of 1100 papers focus on crisis related management accounting topics. We find that, papers which have at least one of the keywords ‘competition’, ‘cost’, ‘crisis’ and ‘performance’ comprise 67 per cent of all the relevant papers in our sample.

Originality/value – Our study provides detailed information on the scale and scope of crisis related management accounting literature in Turkey through a content analysis and contributes to the current debate on the global financial crisis by suggesting which issues matter the most when it comes to sustaining competitiveness.

Keywords Financial crisis, Management accounting, Content analysis, Turkey.

Paper type Literature review

INTRODUCTION

Ever since the major liberalization program of the 1980's, the Turkish economy periodically goes through “boom and bust cycles” (Özler et al., 2009) and Turkish firms have learned to cope with the far reaching effects of these cycles. Some of the most recent episodes of crises in Turkey are, the 1994 crisis primarily caused by the growing budget deficit (Yeldan, 1994) and the 2000-2001 crisis largely due to a very fragile banking system (Işık, 2004).

The survivors somehow manage to maintain their competitiveness in the face of not only the domestic but also the numerous global financial crises, The “big five” developed economy crises (Reinhart and Rogoff, 2009) and the recent “panic of 2007” (Gorton, 2009) as well as other emerging market episodes of the 1997-1998 Asian Crisis and the 2001 Argentinean Crisis all hit the Turkish economy at varying intensities and put competitiveness in the spotlight.

In the literature, a number of studies explore the relationship between competitiveness and a variety of firm and economy specific factors, such as exports (Özler, 2009), R&D support programs (Özçelik and Taymaz, 2008) and innovation while controlling for potentially confounding factors of firm size, advertisement intensity, ownership structure and composition of employees (Özçelik and Taymaz, 2004). However, there is another strand of literature that looks at the same issue from the management accounting perspective.

This backdrop provides the motivation for our study. We aim to shed some light on the scale and scope of crisis related management accounting literature in Turkey and to get a feel for the direction it is moving towards. To achieve this objective we perform a content analysis of the research areas,

topics, research methods and author affiliations based on three major Turkish journals with an accounting focus from 2000 onwards. We find that, papers with at least one of the keywords 'competition', 'cost', 'crisis' and 'performance' comprise 67 per cent of all the relevant papers in our sample.

RESEARCH METHODOLOGY

In order to perform a content analysis, we review all the articles in accounting journals published in Turkey from January 2000 to August 2009. Although management accounting papers occasionally appear in journals with a broader business or economics focus, we exclude them from our sample in order to fully understand the position of crisis related research within the wider management accounting literature. The journals included in the study are Muhasebe ve Finansman Dergisi (Journal of Accounting and Finance), Muhasebe ve Denetime Bakış Dergisi ('Glance' at Accounting and Auditing Journal) and Muhasebe Bilim Dünyası Dergisi (World of Accounting Science Journal), denoted in the text and tables that follow as journals A, B and C, respectively. Journals A and C are indexed internationally (EBSCO) and journal B is indexed nationally (ULAKBİM-SBVT).

RESEARCH FINDINGS

Table I, Panel A presents the yearly breakdown of the number of papers in each of the three journals for all subject areas. Table I, Panel B provides the yearly breakdown of the number of issues published for each journal. We review a total of 1100 papers in 89 issues of the three journals for the ten-year period and find 153 relevant papers (14 per cent). In deciding whether a paper is relevant or not, we analyze the content for conceptual links established between the management accounting and crisis subject areas.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	N
Panel A. Number of papers											
Journal A	46	80	66	72	68	77	77	72	69	34	661
Journal B	20	20	19	9	26	27	32	23	23	9	208
Journal C	28	8	16	17	8	33	35	35	43	8	231
Total	94	108	101	98	102	137	144	130	135	51	1100
Panel B. Number of issues											
Journal A	4	4	4	4	4	4	4	4	4	2	38
Journal B	2	2	2	1	3	3	4	3	3	1	24
Journal C	4	1	2	2	1	4	4	4	4	1	27
Total	10	7	8	7	8	11	12	11	11	4	89

Table I. The distribution of the number of papers and number of issues (all subject areas)

Table II provides the yearly distribution of relevant papers by paper type or methodology used for each of the three journals. We find that 42 per cent of the papers are conceptual (65 out of 153), 35 per cent (54 out of 153) are case studies, 20 per cent (30 out of 153) are empirical research papers (including surveys) and 3 per cent are translations.

	2000			2001			2002			2003			2004			2005			2006			2007			2008			2009			N
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C				
Conceptual Paper		2	1	1	4	1	3	2	2	3	1	2	1	4	1	1	5	6	2	3	3	2	1	2	2	3	2	3	2	65	
Case study	1	2	1		1		1		3	5	1	5	7	2		2	3	2	4	4	1	2	2	1	1	1	1	1	54		
Empirical Research									1	2		1	2	1		1		1	2	3	1	3	2	2		2	2	2	30		
Translation				1			1	1						1															4		

Table II. The distribution of relevant papers by type/methodology

Author affiliations along with the number of academics from each university are presented in Table III. The 153 relevant papers we have identified in our study are authored by a total of 222 researchers affiliated with 50 Turkish and foreign universities.

<i>Name of University</i>	<i>Researchers</i>	<i>Name of University</i>	<i>Researchers</i>
Dokuz Eylül University	22	Fatih University	3
Marmara University	17	Trakya University	2
Niğde University	15	Muğla University	3
Çukurova University	14	İnönü University	2
Ankara University	11	Başkent University	2
Dumlupınar University	10	İstanbul Aydın University	2
Adnan Menderes University	8	Yıldız Teknik University	2
Sakarya University	8	Erciyes University	2
Karadeniz Teknik University	7	Ege University	2
Afyon Kocatepe University	7	Osmangazi University	2
Uludağ University	6	Maltepe University	2
Akdeniz University	6	Bahçeşehir University	1
Kocaeli University	5	Bozok University	1
Zonguldak Karaelmas University	5	Maltepe University	1
Gazi University	5	Kırıkkale University	1
Atatürk University	5	Kadir Has University	1
Anadolu University	5	Sütçü İmam University	1
Gaziantep University	4	Celal Bayar University	1
Süleyman Demirel University	4	Fırat University	1
Çanakkale On Sekiz Mart University	4	Atılım University	1
Mustafa Kemal University	4	Bilecik University	1
Kafkas University	3	İzmir Ekonomi University	1
Galatasaray University	3	Massachusetts University USA	1
Balıkesir University	3	De Monfort University	1
İstanbul University	3	Hamburg University	1

Table III. Author affiliations

Table IV presents the frequency of the relevant articles based on subject area keywords, published by each journal in each of the ten years included in our study. It is evident that global competition is by far the most popular (31 out of 153 articles) topic of the last decade in crisis related management accounting research. Papers in this area generally talk about global competition in the context of relevant methods such as just-in-time (JIT) production, activity based costing (ABC), and activity based management (ABM) and how they affect managerial decision making at various stages during and after a crisis period.

The second most popular topic is, not surprisingly related with the internal auditing function (20 out of 153 papers). More specifically, papers in this area deal with strategic internal audit and risk focused internal controls. It is unusual for firms to reevaluate their internal control structures to see which areas have room for improvement.

The third most popular topic concerns performance evaluation (14 out of 153 papers) with specific reference to the balanced score card (BSC) and the economic value added (EVA) approaches. These are the more contemporary approaches when compared with the traditional performance evaluation techniques such as budget variance analysis, profit controls and residual income methods.

When we look at Table IV from the point of view of single keywords that appear repeatedly under different subject areas, we find that 35 papers (23 per cent) include 'competition', 28 papers (18 per cent) include 'cost', 21 papers (14 per cent) include 'crisis' and 18 papers (12 per cent) include 'performance' among the keywords. When firms are constantly struggling to survive, it is not

surprising that papers which include at least one of these four keywords comprise 67 per cent of all the papers in our sample.

CONCLUSION

In our content analysis we find that only 14 per cent (153 out of 1100) of the articles that appear in accounting journals during the last 10 years in Turkey are attributable to crisis related management accounting topics. Additionally, we find that 42 per cent of these papers are conceptual. However, the percentage of case studies is higher than conceptual papers for two consecutive years with a two-year lag following crisis. For example, following both the domestic and international crises in 2001, 55 per cent (11 out of 20 papers) of all the crisis related management accounting papers published in 2003 are case studies, while 30 per cent (6 out of 20 papers) are conceptual papers. Similarly, in 2004 47 (9 out of 19 papers) per cent of the papers are case studies while 32 (6 out of 19 papers) per cent are conceptual papers.

The total number of crisis related management accounting papers in 2006 is the highest (23 papers) for our sampling period. This is mainly due to the increase in the number of empirical research papers (including surveys) concerning the consequences of the 2000-2001 crisis in Turkey.

Overall it looks as though the crisis related management accounting literature in Turkey has not quite caught up with what is going on in practice during the last decade. We feel that there is a need to promptly analyze 'what went wrong' immediately following the crisis and to make available a set of recommendations in order to assist firms to better prepare for the next wave. One possible solution to overcome the time-consuming publication process could be to make the working papers available on an internet research network in a user-friendly format that will allow feedback and dialogue between researchers and practitioners. We believe that our study will provide the motivation for future studies in the area of crisis related management accounting.

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Table IV. Distribution of relevant papers by subject area keywords

	2000			2001			2002			2003			2004			2005			2006			2007			2008			2009			N
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C				
Global competition: relevant methods (JIT, ABC, ABM,)	1			3					3	1		5	4	2	1	2	2	1	3			1		1			1			31	
Strategic internal audit Risk focused internal controls	1	1		1			1	1	1	1				1		1	1		1			1	3		1	3		1	20		
Performance evaluation: Balanced score card (BSC) Economic value added (EVA)										1			3	2		1	1	1	1	1	1				2				14		
Quality costing and management			1		1	1						1				1			2		1	1	1		1		1		12		
Cost reduction-Target costing	1				1			1		1			1	1							1	1		1		1	1		11		
Global crisis and accounting				1					1				1					1						1			2		8		
Corporate governance															1				1			2			2				6		
Transfer pricing	1									1			1	1					1	1									6		
Liquidity management and planning during crisis	1						1			1	1		1													1			6		
Risk and accounting information systems							1			1											1			1			1		5		
Use of information systems during crises										2									1	1						1			5		
Competition strategies												1				1										1			4		
Theory of constraints Throughput accounting																3		1											4		
Crisis and accounting ethics															1	1			2										4		
Financial crisis prediction							2														1								3		
Strategic cost accounting																			1						1		1		3		
Outsourcing										1											1								2		
Non-financial measures of performance																			1						1				2		
Market Value Added (MVA)																					1								1		
Flexible budgets																					1								1		
Responsibility accounting															1														1		
Cost prediction													1																1		
Performance and Costing																				1									1		
Simplified accounting																		1											1		
Profitability analysis									1																				1		
TOTAL FOR YEAR	7			8			13			18			20			21			23			16			16			11	153		

INTERNET FINANCIAL REPORTING: THE CASE OF TURKEY

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Purpose – The purpose of our paper is to investigate the current state of internet financial reporting in light of the recent regulatory changes in the financial reporting environment of Turkish firms. Although these regulations only cover publicly listed firms, there has also been some usage of the internet as a means of disseminating financial information by large unlisted firms. However, we do not know the scale and scope of such voluntary financial disclosures or how they have changed over time.

Design/methodology/approach – We survey the top 500 Turkish industrial firms on the ‘Istanbul Chamber of Industry 500 list’ (ICI500) to ascertain whether the recent regulatory changes have led to significant changes with respect to their financial reporting on the internet.

Findings – Although we report a statistically significant increase in the number of firms providing financial disclosures on the internet from 2003 to 2007, we highlight a number of problem areas such as the extremely low level of voluntary disclosures (merely 7 per cent of the firms) and the apparent reluctance of listed firms to provide financial information unless it is mandatory to do so (such as financial summaries, financial ratios, share price performance and management reports).

Originality/value – Our study provides detailed information on the state of internet financial reporting in Turkey before and after major regulatory changes and focuses not just on quoted firms but also on large unlisted industrials.

Keywords Internet Financial Reporting (IFR), Turkey, Mandatory disclosures, Voluntary disclosures

Paper type Research paper

INTRODUCTION

The disclosure of corporate financial information on the internet has been in the center of much debate and scrutiny for more than a decade. However, in the aftermath of the current global financial crisis, the issue of internet financial reporting (IFR) has gained new impetus, with an ever-increasing demand for transparency and timeliness of financial and price-sensitive information disclosures. Even in countries with developed securities markets, where IFR has become a fundamental instrument in the dissemination of financial information, there have been calls to look at the whole issue with fresh eyes, especially for disclosures of items such as top management pay and bonuses. In emerging markets, despite the growing use of internet for corporate communication purposes, empirical evidence on IFR (Khadaroo, 2005; Mohamed, 2009) tells us that it is still in its “first-stage” as described by Lymer et al. (1999).

In Turkey, there were no recommendations, guidance, rules or regulations concerning the extent and coverage of IFR until recently. The main switch from local standards to International Financial Reporting Standards (IFRS) came into effect starting with financial statements prepared after January 1st, 2005, as a move towards greater financial integration of Turkey with the European Union. Additionally, also effective as of January 1st, 2005, the Capital Market Board (CMB) Directive Series: XI, No:25, Article: 722, made it mandatory for firms with a web site to make the annual report, annual and interim financial statements and the audit report publicly available in an easily accessible manner for a period of at least 5 years. It is important to point out that these regulations only cover firms listed at the Istanbul Stock Exchange (ISE).

It was hoped that this unprecedented move towards increased transparency and communication between investors and publicly listed firms would pave the way for large unlisted industrials to follow suit. The average total net assets of the top 500 industrial firms with a private or foreign ownership (i.e. excluding large state owned industrials) amounts to 319 million TL as at the end of 2006. Compared to average total net

assets of 432 million TL for publicly listed non-financial firms as at the end of 2006, it is possible to say that the top 500 industrials have considerable influence over the Turkish economy. Hence, from a stakeholder point of view, how these large industrials handle IFR is particularly relevant and necessitates further assessment.

This constitutes the motivation for our study. Our purpose is to find out the precise scale and scope of financial disclosures over the internet for the top 500 industrial firms in Turkey. Additionally we aim to uncover whether the recent regulatory changes that made IFR mandatory for publicly listed firms, had the desired effect of encouraging voluntary disclosures of large industrial firms. For this purpose, we survey the IFR practices of firms on the Istanbul Chamber of Industry 500 (ICI500) list and using data for 2003 and 2007 we conduct a before-and-after analysis to see whether they have changed over time. We would expect that, in an era where the internet becomes a greater part of everyone's lives, more and more firms would increase their voluntary internet disclosures, regardless of certain regulatory changes. At least this is what most empirical evidence tells us²⁸. However, we find that voluntary disclosures of financial statements for unlisted firms are as low as 7 per cent. It is not all bad news though; we do report a modest improvement in the sophistication of general information disclosed, such as video clips and slide shows, as well as a tendency to increase the time periods for which voluntary and mandatory financial information is disclosed.

Our paper's main contribution to the IFR body of literature is that although there is an ever growing use of the internet for financial information disclosures, it would not be safe to assume that the picture is fairly similar in other parts of the world, or that firms are willing and motivated to provide financial disclosures regardless of whether they are obliged to do so.

The remainder of the paper is organized as follows. Section 2 provides a review of relevant literature on IFR, from the regulatory bodies' point of view as well as the country studies to-date. Section 3 provides the details of our research methodology. Section 4 discusses our survey findings and Section 5 concludes.

LITERATURE REVIEW

Regulatory bodies and standards

The rise of voluntary corporate disclosures on the internet can be traced back to the practices of the Securities and Exchange Commission (SEC) in mid-1990s. Lymer (1999) suggests that the SEC's online filing facility for corporate information provided that motivation for firms to include this information on their own web sites. By the beginning of 1998, 91% of the companies in the Standard and Poors (S&P) 500 index were extensively using the Internet for their investor relations function (Deller et al., 1998).

In 1998 the International Accounting Standards Committee (IASC) commissioned a comprehensive a study titled "Business Reporting on the Internet" which surveyed the 30 largest corporations in 22 countries spanning Europe, Asia-Pacific, and North and South America. The IASC report, issued in November 1999, highlighted that most corporations were not making use of the internet's full potential for business reporting purposes. The study also underlined the lack of national and/or international guidance on the technology and content of IFR and proposed a "code of conduct" to improve the efficacy and credibility of online information (Lymer et al., 1999).

Another significant contribution of the IASC study to our understanding of IFR was that it set out a three-stage process in the adoption of the Internet for business reporting. The first stage comprised the use of Internet as just another medium for delivering printed information, such as annual reports in the form of HTML or Adobe Acrobat. The second stage comprised the presentation of the same printed information in a more web-friendly way in the sense that interaction with web browsers and search engines was readily available. Finally, the third stage comprised the inclusion of not only the printed information but also detailed and specific information that may be of interest to third parties, as well as the interactive tools

²⁸ Please refer to Mohamed et al. (2009) for a thorough review of the country studies, presented in a tabular format along with the key issues and findings of each study.

needed in order to analyse such information. This report had a notable impact on both the practice and the academic research in this area by setting out a blueprint and starting the whole debate of IFR.

The Canadian Institute of Accountants (CICA) (Trites, 1999) and the Financial Accounting Standards Board (FASB, 2000) soon followed pursuit in looking into the use of the internet for the dissemination of corporate information. The most recent contribution in the area of professional pronouncements was made by the International Federation of Accountants (IFAC, 2002) who published a “code of conduct” for IFR, based on the recommendations originally proposed by the IASC study. The code was the focus of a joint working party between the IASC (now renamed as IASB) and IFAC, which was later on suspended due to the launch of the new board.

Regulatory bodies are also taking steps in order to protect investors using the internet to access information that could potentially affect their decision-making. In November 2002, the Securities and Exchange Commission (SEC) made it mandatory for firms to disclose the sources that provide access to their SEC filings, such as forms 10-K, 10-Q and 8-K, in their annual reports. Firms were also required to state whether or not this information is provided on their web sites, and if not, the reasons for not doing so (SEC, 2002). In March 2003, the SEC adopted rules which made it mandatory for a public company to either disclose its corporate code of ethics in its annual report (form 10-K or for 20-F) or to post it on its web site provided that they adequately inform users as to the web address of the text (SEC, 2003a). Subsequently, in June 2003, the electronic filing and corporate web page disclosures of beneficial ownership by insiders and majority shareholders became mandatory (SEC, 2003b). These new rules made it possible to implement Sections 406, 407 and 403 of the Sarbanes-Oxley Act of 2002.

International organisations such as the OECD have also voiced their concerns and the prospects regarding IFR. The OECD view can be best summarised by the statement “channels for the dissemination of information can be as important as the content of the information itself” (OECD, 2004, 56). The OECD guidelines also point to the importance of an efficient disclosure regime as the primary tool for investor protection crucial for building confidence in the capital markets.

The Internal Market Directorate-General of the European Union has also adopted a similar view and proposed a course of action in order to enhance corporate transparency. According to the Commission, corporate websites should take on the role of being the fundamental instrument of disclosure for corporations listed on European Exchanges and the national exchanges or regulators should see to it that interested parties can access this information easily (European Commission, 2002).

In Turkey, as a result of the ‘Public Disclosure Platform’ (Kamuyu Aydınlatma Plaformu) of the joint task force between the Capital Market Board (CMB), the Istanbul Stock Exchange (ISE) and the Scientific and Technological Research Council of Turkey (TUBITAK), the CMB Directive Series: XI, No: 25, Article: 722 was issued which, effective as of 01.01.2005, made it mandatory for firms with a web site to make the annual report, annual and interim financial statements and the audit report publicly available in an easily accessible manner for a period of at least 5 years. Additionally, as a consequence of the project, a new web site was developed and maintained by the task force which allows investors to search, prepare reports and download (as text, .csv or .xls file) financial statement items of interest for a specific firm or a number of firms in a specific industry group or index. The web site also allows firms to post price sensitive information, announcements and news items, in a searchable and downloadable format for investors.

From an emerging markets point of view, this project is a success story of how the dialogue and cooperation among practitioners, academics and regulatory bodies can help identify a problem area and take steps to rectify it. However, its coverage is limited strictly to firms quoted at the ISE. Hence, there is still no guidance, recommendations or regulation regarding the scale and scope of financial disclosures for large unlisted industrial firms in Turkey.

Country studies

The literature-to-date on IFR can be grouped into five broad categories as descriptive, exploratory, normative, specific and predictive studies.

The earliest studies in IFR have descriptive intentions and involve a review of the information presented on corporate websites. Studies by Petravick and Gillet (1996) (US), Gowthorpe and Amat (1999) (Spain), Hedlin (1999) (Sweden), Ettredge et al. (2001) (US) and Mohamed et al. (2009) (Oman) provide useful insights into the country-specific IFR practices. International comparisons are also provided in the studies by Lymer and Tallberg (1997) (UK and Finland), Deller et al. (1999) (US, UK, Germany) and Khadaroo (2005) (Malaysia and Singapore).

The second group has exploratory intentions and attempt to shed light on the determinants of IFR. Ashbaugh et al. (1999) (US), Craven and Marston (1999) (UK), Pirchegger and Wagenhofer (1999) (Austria and Germany), Debreceeny et al. (2002), Ettredge et al. (2002), Avallone and Veneziani (2003) (Italy), Marston (2003) (Japan) and Marston and Polei (2004) (Germany) are some of the studies in this category.

The normative studies by Lymer et al. (1999) and FASB (2000) are of particular note since they represent the building blocks for further research in the area.

Additionally, a number of studies explore some of the specific issues related with IFR such as the technical aspects (Bovee et al., 2001; Debreceeny and Gray, 2001; Dulla et al., 2003; Hodge et al., 2004), and the demand-side of IFR (Ettredge et al., 1999; Beattie and Pratt, 2001 and 2003; Gowthorpe, 2004; Quagli and Riva, 2006).

Finally, the predictive studies that talk about the future trends and expectations related with IFR are provided by Lymer (1999), Jones et al. (2001) and Jones and Xiao (2003 and 2004).

Almost all of the above studies report company size as the most significant explanatory variable for IFR. Conflicting result were reported for level of technology, foreign listing, liquidity, industry sector and profitability among different countries and reporting environments. However, leverage and shareholding by institutional investors most commonly do not appear to have predictive power in IFR (Ashbaugh et al., 1999; Brennan and Kelly, 2000). Overall, it is fair to say that larger, more profitable and more technology-oriented firms tend to have higher IFR adoption rates (Ashbaugh et al., 1999; Debreceeny et al., 2002).

It is important to bear in mind that looking at IFR usage rates alone can be misleading, in the sense that, higher adoption of IFR does not always translate into technologically advanced or sophisticated usage. Geerings et al. (2003) report that most web sites in their sample of Euronext zone firms provided simple e-mail links to the investor relations departments rather than the more advanced practices of video/audio recordings and online interactive participation in general meetings which were found to be extremely rare.

In Turkey, there are four studies to-date that focus on IFR. Durukan and Özkan (2003) look at IFR practices of 192 non-financial firms quoted at the Istanbul Stock Exchange (ISE) at the beginning of 2002 and report that 38% of the firms disclose financial information on their websites. Using an identical sampling and data collection approach, Dönmez et al. (2007) survey 217 non-financial firms listed at the ISE in March 2004 and find that only 36% of the firms provide financial information on their websites. This finding is contrary to what we would expect since this level is lower than that reported two years ago by Durukan and Özkan (2003). In other words, from 2002 to 2004 we observe a decline, albeit slightly, in the usage of the internet as a preferred means of corporate financial disclosures of publicly listed firms.

However, the picture is quite different for the top 500 industrial firms in Turkey. Aslan (2004) and Arzova and Aslan (2005) survey firms included in the ICI500 list maintained by the Istanbul Chamber of Industry (ICI). Majority of these firms are not publicly listed. They find a rather bleak picture and report that an appallingly low 10% of the firms provide financial summaries on their web sites. They offer possible explanations for the low IFR adoption rate and suggest that lack of investor pressure and lack of usage of internet as a decision making tool could be driving these results. They conclude that firms prefer to use the internet mainly as a marketing tool.

RESEARCH APPROACH

We investigate the top 500 Turkish industrial firms included in the 'Istanbul Chamber of Industry 500' (ICI500) list to ascertain whether the recent regulatory changes, concerning publicly quoted firms only, have also had an impact on large industrials' financial reporting on the internet. Following Fisher et al. (2004), we

adopt a process of identifying corporate websites, with minor modifications to reflect the Turkish context, as explained below.

We started off by downloading the ICI500 list from the Istanbul Chamber of Industry (ICI) website, on April 15th, 2007. The ranking on this list is based on financial results as at the end of December 2006. In order to find out whether these firms have web sites or not we used the 'member search' facility on the ICI home page to see if a web page address is provided for the firm in question. When this information was not available we conducted a search using google.com and yahoo.com search engines. On the rare occasion where the above steps produced no results, we contacted the firms by telephone and inquired about their web sites.

Where corporate web sites are available, we proceeded to collect information about general web page attributes, financial information and financial statements disclosed. Following Khadaroo (2005), in order to improve the validity of the data collected, for each firm the information was recorded into two separate questionnaires, which were subsequently compared and conflicting items resolved. Due to the dynamic nature of web pages, we ensured that the data collection and validation stages were initiated and completed during the month of May 2007.

We chose this specific month since it allows enough time for the publicly listed firms to have their annual financial statements audited and ready to be included in their annual reports and subsequently disclosed on their web sites, as required by the CMB directive. Additionally, the end of May roughly constitutes a deadline to get all the annual financials, reports and disclosures finalized before the interim financial statements are due.

In order to provide a before-and-after perspective following the regulatory changes that took place, we use comparative data for 2003 from an earlier study by the co-authors (Arzova and Aslan, 2005), which also dictates the specific attributes chosen to be included in the 2007 data. The significant changes between the two years were identified using a Pearson's Chi Square statistical test.

RESULTS AND DISCUSSION

We find evidence that, in Turkey, the top 500 industrial firms are increasingly using the internet as a preferred means of corporate communications. The number of firms that have a web page increased from 415 in 2003 to 438 in 2007 ($p: 0.025$). How the scale and scope of these web pages changed over time will be explored in the following sub-sections.

General attributes

In Table 1, we summarize some general web page attributes and compare how they have changed over time. We find a decrease in the number of firms that prefer to use a web page address same as the firm name, albeit statistically insignificant. Upon further examination we find that this decrease was due to firms preferring to use a 'corporate group' web page to cover all subsidiaries, rather than maintain a separate web page for each subsidiary.

For general corporate information disclosures we find a statistically significant difference between the two years ($p < 0.001$). Although 'html' is still the most popular format by far (95 per cent of the firms in 2003 and 88 per cent of the firms in 2007 prefer this format) its popularity is decreasing over time with the introduction of more advanced media such as video clips and slide shows. While in 2003 only 3 per cent of the firms preferred these formats, in 2007 it increased to 11 per cent, due to decreases in the cost of web-hosting space and the time required for downloading the pages, thanks to widely-available broadband internet.

General Attributes	% of firms with the given attribute		Pearson's Chi-Sq. (P-value)
	2003	2007	
Web address same as firm name	89%	86%	0.189
Format of general information disclosed			0.000
html	95%	88%	
pdf	2%	1%	
other (video clip, slide show)	3%	11%	
Steps from home to financial information page			0.000
0	87%	4%	
1	5%	8%	
2	4%	41%	
3	3%	38%	
4	0%	9%	
Downloadable financial information provided	13%	29%	0.000
Downloadable financial information format			0.000
html	73%	8%	
pdf	27%	89%	
word	0%	3%	
Link to download .pdf reader software	27%	9%	0.000
Link to homepage	92%	82%	0.000
Foreign language support	83%	93%	0.000
Listed at the Istanbul Stock Exchange	34%	24%	0.000

Table 1. General web page attributes

In terms of the financial information disclosed, it is possible to say that in 2007 it has become harder to reach it ($p < 0.001$). While in 2003, 87 per cent of the firms provided a link to financial information page in their home pages, in 2007 only 4 per cent of the firms provided such link. Furthermore, in 2007, for 88 per cent of the firms the number of steps required from home page to financial information page was at least 2 steps. This could be the result of more advanced web page designs or simply greater volume of information included on the corporate web pages making it necessary to use a more structured format.

The percentage of firms providing downloadable financial information increased from 13 per cent in 2003 to 29 per cent in 2007 ($p < 0.001$). For those firms who have provided downloadable financial information, there was a clear shift from the 'html' to the 'pdf' format over time ($p < 0.001$). In 2003, 73 per cent of the firms

preferred 'html' and 27 per cent of the firms preferred 'pdf'. However, in 2007, 8 per cent of the firms preferred 'html' and 89 per cent preferred 'pdf'. Additionally, the link to download '.pdf' reader software was provided by 27 per cent of the firms in 2003 and 9 per cent of the firms in 2007 ($p < 0.001$). The reasons behind these changes could be that the 'pdf' format provides an easily accessible and free-to-use media of information disclosure, especially with respect to tables, graphs and other embedded objects, as well as overcome the problem of distorted layout and formatting encountered when saving the 'html' file. Additionally, with the standard installation of many software today, the .pdf reader is installed automatically for access to user manuals.

Furthermore, it could be that, the firms assume users of financial information disclosed on their websites to be more computer-literate by looking at the statistically significant decrease from 2003 to 2007 in the percentage of firms providing a link to download '.pdf' reader software and a link to homepage from the financial information page.

In 2007, the percentage of publicly quoted firms included in the ICI500 list decreased to 24 per cent from 34 per cent in 2003. This decrease is mainly due to the initiation of an ambitious privatization program in 2005, which during its first year alone generated 208 million dollars (ISO, 2006). The privatization through block sale created not only new subsidiaries of existing conglomerates but also new industrial conglomerates which made it to the ICI500 list but are not publicly quoted. Moreover, during 2005, an impressive \$8.6 billion of foreign direct investment (FDI) came into the Turkish economy (ISO, 2006), creating large firms that do not necessarily need to go public to raise funds.

General financial information

In Table 2, the percentage of firms disclosing general financial information on their web sites in 2003 and 2007 is presented and compared. We find that the percentage of firms providing a financial summary and financial ratios have actually minimally decreased over time. This change is not statistically significant. This is surprising because even the publicly quoted firms did not provide these items. In 2007, 24 per cent of the firms are quoted while only 9 per cent and 8 per cent of the firms provide financial summaries and ratios, respectively.

However when we look at the number of years these items are available for, there is clearly a shift towards longer time periods. For those firms that do disclose financial summaries, in 2003 only one-year financial summaries were available for 90 per cent of the firms, whereas in 2007 two and three-year financial summaries were available for 76 per cent and 12 per cent of the firms, respectively ($p < 0.001$). We see a similar picture for financial ratios, in the sense that, those firms that do make available their financial ratios, frequently do so for one-year (59 per cent) in 2003 and two-year periods (58 per cent) in 2007 ($p: 0.020$).

	% of firms disclosing The respective items		Pearson's Chi-Sq. (P-value)
	2003	2007	
<i>General Financial Information</i>			
<i>Financial summary</i>	10%	9%	0.456
<i>Financial summary available for</i>			0.000
1 year	90%	3%	
2 years	5%	76%	
3 years	2%	12%	
4 years	1%	4%	
≥ 5 years	1%	5%	
<i>Financial ratios</i>	11%	8%	0.225
<i>Financial ratios available for</i>			0.020
1 year	59%	29%	
2 years	30%	58%	
3 years	11%	13%	
<i>Share price performance</i>	3%	16%	0.000
<i>Management reports</i>	3%	17%	0.000

Table 2. General financial information disclosed

One possible explanation could be that, quoted firms do not choose to disclose any more financial information than they are legally required to. The recent regulatory changes do not specifically talk about disclosing financial summaries or ratios on the corporate web sites. Although it does talk about disclosing the annual report, we find, during our review of corporate web sites, that the content and caliber of the annual report varies drastically among quoted firms. Another possible explanation could be that, with the proliferation of investors' web sites that offer real-time on-line financial information for a fee and information with only a few minutes delay for free, the firms might perceive that disclosing this information on corporate web sites is futile from an investors' decision making point of view. After all, investors can easily have free access to the financial highlights and ratios of quoted firms and compare these figures with the industry or any sub-group they choose using one of the many investors' web sites.

As for the disclosure of share price performance and management reports detailing the reasons behind the observed financial results, from 2003 to 2007 the increase from 3 per cent to 16 per cent and from 3 per cent to 17 per cent, respectively, are both statistically significant ($p < 0.001$). However, for 2007 these percentages are still less than the percentage of quoted firms in the sample, which brings us to the above argument of whether the quoted firms are reluctant to provide voluntary disclosures or that they think it is simply not necessary. The latter could be said about share price performance since quite elaborate technical charts can be produced for the real-time share price performance of any listed firm on investors' web sites for as low as €8 per month. However, this does not hold true for management reports explaining why we observe the specific financial results for the past year or what the firm hopes to achieve financially for the year ahead.

Financial Statements

In Table 3, the percentage of firms disclosing their financial statements for 2003 and 2007 is presented, along with time periods these financial statements are available for and the Pearson's Chi-Square statistics to test for the difference between the two years. Financial statements included in the study comprise the balance sheet, the income statement, the statement of cash flows and the statement of shareholders' equity.

We find that, the percentage of firms disclosing each of the above four financial statements is statistically significantly higher in 2007. More specifically, the number of firms that disclosed their balance sheet and income statement increased from 13 per cent and 12 per cent, respectively, in 2003 to 29 per cent in 2007 ($p < 0.001$ for each test). We find a more pronounced increase from 3 per cent to 29 per cent and from 6 per

cent to 29 per cent for statement of cash flows and statement of shareholders equity, respectively ($p < 0.001$ for each test).

	% of firms disclosing the respective items		Pearson's Chi-Sq. (P-value)
	2003	2007	
<i>Financial Statements</i>			
<i>Balance Sheet</i>	13%	29%	0.000
<i>Balance Sheet available for</i>			0.000
1 year	56%	2%	
2 years	19%	19%	
3 years	8%	4%	
4 years	4%	44%	
≥ 5 years	13%	31%	
<i>Income Statement</i>	12%	29%	0.000
<i>Income Statement available for</i>			0.000
1 year	62%	2%	
2 years	15%	19%	
3 years	4%	4%	
4 years	4%	44%	
≥ 5 years	15%	31%	
<i>Statement of Cash Flows</i>	3%	29%	0.000
<i>Statement of Cash Flows available for</i>			0.000
1 year	50%	1%	
2 years	33%	22%	
3 years	17%	2%	
4 years	0%	46%	
≥ 5 years	0%	29%	
<i>Statement of Shareholders Equity</i>	6%	29%	0.000
<i>Statement of Shareholders Equity available for</i>			0.000
1 year	83%	1%	
2 years	17%	22%	
3 years	0%	2%	
4 years	0%	46%	
≥ 5 years	0%	29%	

Table 3. Financial statements disclosed

When we look into the composition of this 29 per cent for 2007, we find that 22 per cent (111 firms) is due to mandatory disclosures of listed firms and the remainder 7 per cent (34 firms) comprised voluntary disclosures of unlisted firms. We further inquire the reasons behind the percentage of firms providing mandatory disclosures (22 per cent) being lower than the percentage of listed firms in the ICI list (24 per cent). We find that the difference is due to 10 firms' financial statement web pages being temporarily unavailable, under-construction or having a missing link during the data collection period of our study. However, upon subsequent follow up, we verified that the problems were all resolved by the time the interim statements were due in each case. Furthermore, when we examine the voluntary disclosures made by unlisted firms (34 firms), we come across unlisted subsidiaries of large corporate groups which are listed and hence prepare consolidated financial statements in compliance with IFRS.

When we investigate the time periods that the financial statements are made available for, we find an obvious move towards providing financial statements for longer time periods in 2007, as presented in Table 3. Comparing 2003 and 2007, there is a statistically significant ($p < 0.001$) shift in the structure of time periods for all disclosed financial statements. In 2003, for those firms that disclose their financial statements, majority of the disclosures fall into the one and two-year groups. However, this picture changes in 2007 and we find

that, for those firms that disclose their financial statements, majority of the disclosures fall into the four-year and five-or more-years categories. These two categories include the mandatory disclosures by listed firms that are required to make financial statements publicly available for at least five years. This requirement is fulfilled by providing only four IFRS compliant financial statements, since the two-year comparative format allows for a total of five financial years to be disclosed. Hence, the four-year category has the highest percentage of disclosures for all four financial statements in 2007.

Additionally, a closer look at the distribution of time periods for disclosed financial statements in 2007 reveals that there is a clear distinction between mandatory and voluntary disclosures. It is almost as if the three-year category serves as a cut-off point between voluntary and mandatory disclosures. Voluntary disclosures of financial statements most frequently fall into the two-year category; that is, one financial statement with two comparative years. We do not observe such apparent polarity in 2003 for the simple fact that internet financial reporting was not mandatory for listed firms at the time.

Last but not least, the distribution also tells us that in 2007 firms think of financial statements to be disclosed as if they are pairs. Balance sheet and income statement disclosures have exactly the same time period distributions. Although there is a minute difference, statement of cash flows and statement of shareholders' equity disclosures have their own identical time period distributions. We do not observe such apparent grouping in the time periods for 2003.

SUMMARY AND CONCLUSION

We report an increase in internet financial disclosures of the top 500 industrial firms from 2003 to 2007. The only exceptions are the minimal decreases in financial summaries and financial ratios disclosed which are not statistically significant. The documented increase is mostly attributable to the disclosures of publicly listed firms that are mandated to do so from 2005 onwards. We would expect that, in an era where the internet becomes a greater part of everyone's lives, more and more firms would increase their voluntary internet disclosures, regardless of certain regulatory changes. However, we find that just 7 per cent of the top 500 industrials provide voluntary disclosures of financial statements. Additionally, the financial disclosures of publicly listed firms are strictly confined to what is defined as mandatory.

Nonetheless, it is important to point out that, we see a marked improvement in terms of the sophistication of general information disclosed, such as video clips and slide shows, and the tendency to increase the time periods for which voluntary and mandatory financial information is disclosed.

Our study provided a before-and-after picture of the state IFR in Turkey, with specific reference to not just listed firms but also unlisted large industrials included in the top 500. We have highlighted problematic areas as well as areas that have room for improvement, in light of the recent regulatory changes. We feel that our study will offer the motivation for future studies to look into the drivers of such changes and, from a regulators point of view, the possible pitfalls of bringing in regulation as opposed to recommendations.

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HUMAN RESOURCE MANAGEMENT PRACTICES AND PERFORMANCE IN THE ITALIAN HOSPITALITY ENTERPRISES

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Purpose The aim of this paper is to investigate the relationship between human resource management (HRM) and performance in the Italian hospitality enterprise. In particular, it analyzes the extent of the adoption of human resource management, the existence of a formal HR strategy, and the development of the HR function in the Italian hotel industry in order to verify whether the effectiveness of HRM is contingent upon the approach to business strategy that has been adopted and whether the hotels which introduce a formal supported package of HRM practices outperform those have HRM practices, but not as a part of the organization strategy.

Design/methodology/approach - Main literature studied this topic focusing the analysis on two framework: internal and external fit. In particular, we are going to use an adapted version of the Hoque's model (1999) in order to compare the Italian hotel industry with Hoque's sample (1999) of hotels in the UK and Alleyene, Doherty and Greenidge survey (2006) in the Barbados hotels. The research was done in two separate phases: in a first phase we selected a sample of 350 hotels; in a second phase we sent a structured questionnaire to the 350 hotels of the sample.

Findings - While HR practices was more prevalent in Barbados hotels than in the UK sample, for the Italian hotels it has been found a result similar to UK.

Then, external fit emerges as a fundamental key. A relationship between HRM and performance exists only among some hotels.

Finally, looking at internal fit, there is evidence that higher performance has been found where HRM is introduced as a strategic part of their own business strategy.

Research limitations/implications - Higher performance was found in situations where the hotel emphasizes quality enhancement and adopted a wide range of HRM practices, but it is impossible to be sure about the causes of this result. In fact, it could be that the use of HRM practices caused high performance or that high performing hotels have a superior propensity to innovate in HRM practices.

Finally, it must be considered that the focus of the analysis was on larger hotels, as it is normal that their interest in HRM is higher than in smaller hotels. So, the results can not be assumed as representative of the hotel industry as a whole.

Practical Implications - Hotels introducing HRM practices as a strategic part of their own business strategy should outperform hotels which introduced HRM practice just in a normal operating way. Then, the results concerning performance outcomes would seem to confirm the importance of introducing HRM practices as part of an institutionally strategic package.

Originality/value - This was the first study focused on the relationship between HRM and performance in the Italian hospitality enterprise. Then, as we use almost the same model by Hoque (1999) and Alleyene, Doherty and Greenidge (2006) it was possible to find interesting comparative analysis.

Finally, the results can be used by hotel decision makers to make their HRM practices more effective.

Keywords: *Human Resource Management (HRM), hotels, HR practice, Organizational performance.*

INTRODUCTION

In order to compete in the actual competitive scenario, corporations have modified their internal organisations, evolving to more lean and flexible structures, which enable them to react quickly and adapt their businesses (Foss-Laursen, 2000; Ham-Kleimer, 2002; Laursen-Mahnke, 2000; Leoni-Cristini-Mazzoni-Labory, 2000; Wilkinson, 2000; Valdani, 2000). This is reflected in the way corporations search for sources of competitive advantage, moving their attention from “hard” elements, such as privileged access to resources (e.g. capital), to “softer” elements, such as the management of human resources, innovation, etc.

The relationship between “human resources” and “performance” is a theme that has been widely discussed over the last twenty years, especially in the US (Arthur 1994; Koch *et al.*, 1996; Lazear 1996; Ichniowski *et al.*, 1999; Osterman, 1994; Huselid, 1995; Macduffie, 1995) and in Great Britain (Guest *et al.*, 1994; McNabb *et al.*, 1997; Guest, 1999; Hiltrop, 1999), where a number of research studies have been published in the most prestigious international journals. The main outcome of such studies has been the recognition that human resource management has an important impact on an organisation’s capacity to be competitive and can be considered a source of competitive advantage (Delery *et al.*, 1996; Guest, 1997; Boselie *et al.*, 2001).

Moreover, many authors describe the impact of “high-commitment management” (Wood *et al.*, 1995; Wood *et al.*, 1998) and “high-performance work practices” (Huselid, 1995) on organizations. Most research, however, focus their attention on manufacturing industry (Arthur, 1994; MacDuffie, 1995); even more recently it is possible to find studies related to services, particularly referring to hospitality sector (Boselie *et al.*, 2003; Lockyer *at al.*, 2004; Maxwell, 2004; Tsaur *et al.*, 2004; Boella *et al.*, 2005; Alleyne *et al.*, 2006a; Alleyne *et al.*, 2006b; Chand *et al.*, 2007; Cho *et al.*, 2006; Davidson *et al.*, 2006; Knox *et al.*, 2006; Namasivayam *et al.*, 2006; Connolly *et al.*, 2007; Nickson, 2007; Urbano *et al.*, 2007; Watson *et al.*, 2007).

Given difficulties related the heterogeneity of the service sector it is very hard for researcher to generalize data from different kind of companies like financial enterprises, retailing operations, transport operations and the hospitality sector. So, this paper presents an industry-by-industry approach, rather than an analysis of the services sector as a whole, investigating the relationship between Human Resource Management (HRC) and performance within Italian hospitality sector.

THEORETICAL BACKGROUND

HRM studies

The study of HRM is concerned with the selections that organisations make from among the myriad of policies, practices and structures for managing employees (Sisson, 1990; Boxall *et al.*, 2003; Boselie *et al.*, 2005); deeply, it is a combinations of such practices geared toward improving organisational effectiveness and hence better performance outcomes, in order to enable the organization to achieve its goals (Wright *et al.*, 1992; Delery *et al.*, 1996).

A few trends have emerged in the field of HRM over the past few years. First, most of studies have analyzed the nature of the interaction between HRM and performance (Arthur, 1994; Guest *et al.*, 1994; Kalleberg *et al.*, 1994; Huselid, 1995; MacDuffie, 1995; Snell *et al.*, 1995; Delery *et al.*, 1996; Boselie *et al.*, 2001; Guthrie, 2001) showing a statistically significant linkage between HRM practices and some measures of organizational performance. In the same direction, Harney and Dundon (2006) studies HRM practices in SMEs finding that HRM was not the coherent set of practices typically identified in the literature but rather was often informal and emergent.

A second trend has been to try to understand the mechanisms through which this relationship takes place. Authors such as Becker and Gerhart (1996), Dyer and Reeves (1995), Guest (1997), Wright and Gardner (2003) and Dowling, Welch, Festing, and Engle (2007), studied some of the mediating relationships that must exist between the HRM practices and organizational performance. Other Authors studied the problem from a

theoretical point of view (e.g. Ferris *et al.*, 1999; Guest, 1997; Wood, 1999; Gerhart, 1999; Gerhart *et al.*, 2000a and 2000b; Rogers *et al.*, 1998; Wright *et al.*, 2001).

A final trend has been the recent interest in taking a multi-level approach. Wright and Boswell (2001) reviewed the HRM literature and categorized this research as being differentiated along one dimension representing whether the focus was on single or multiple practices, and along a second dimension dealing with the unit of analysis, specifically the individual versus the group or organization. Ostroff and Bowen (2000) and more recently Bowen and Ostroff (2004) have developed the most extensive multi-level model of HRM arguing that HR practices serve as communications mechanism signalling employees to engage in certain behaviors.

The main outcome of such studies has been the recognition that human resource management has an important impact on an organisation's capacity to be competitive and can be considered a source of competitive advantage.

Due to the heterogeneity of the service sector most of research, as we stated before, have tried to refer the analysis to the industry sector, while it is difficult to find a huge number of research related to the services. As a result, we can easily find literature about HRM practices. The problem, however, is to understand whether hospitality sector is appropriate to focus an analysis on HRM and performance or not.

HRM and hospitality sector

The hotel industry is renowned for its poor pay and employment conditions and a low take-up of HR practices. It is generally believed that the industry has relied on a lowcost, numerically flexible and disposable workforce. Recently, however, there has been debate concerning the extent to which managers in the hotel industry are embracing high commitment HRM and functionally flexible work practices. So, interest in HRM within hospitality sector has increased a lot just during the 1990s. The first studies, in fact, showed a lack of interest among managers in HRM practices (see Guerrier *et al.*, 1989; Hales, 1987; Lockwood *et al.*, 1989; Price, 1994; Lucas, 1995 and 1996). Later research, however, put in evidence that the interest among managers on HRM practice which could help organizations in improving effectiveness and hence better performance outcomes was raising up (Harrington *et al.*, 1996; Watson *et al.*, 1996; Gilbert *et al.*, 1997; Hoque, 1999).

However, it is only during 2000s that it is possible to find specific evidences of the systematic use of HRM practices within the hospitality sector.

Boselie, Paauwe and Richardson (2003) investigate empirical data on the effectiveness of human resource management in the Netherlands, including tourism industry, finding a lower effect of HRM than in other sectors. In the same direction, Lockyer and Scholarios (2004) consider the nature of "best practice" recruitment and selection in the Scottish hotel sector showing a reliance on informal methods in smaller hotels and structured procedures, including references, application forms and panel interviews in larger and chain hotels. In the same direction Knox and Walsh (2006), studying Australian hotels, put in evidence that while hotel workplaces in general continue to be associated with high levels of numerical and temporal flexibility and greater informality of HR policies, it was apparent that larger luxury hotels were adopting more systematic employee management techniques and strengthening their internal labour markets through functional flexibility initiatives. In the same way, Urbano and Yordanova study the determinants of the adoption of HRM practices moving the attention to tourism SMEs. They find that the adoption of HRM practices is positively associated with the presence of an HRM department. Also, SMEs in which the person responsible for HRM has previous experience in similar positions are greater adopters of HRM practices. Finally, SMEs which cooperate with other organizations are more likely to implement HRM practices.

Tsaur and Chun Lin (2004) empirically explore the relationship among human resource management practices, service behavior and service quality in the tourist hotels discovering that HRM practices had partially a direct effect on customer perceptions of service quality and an indirect effect through employees' service behavior. Also Maxwell, Watson and Quail (2004) investigate the nature of, and relationship between, a quality service initiative and the concept of strategic human resource development, finding that the quality

initiative is acting as a catalyst for a strategic approach to human resource development to emerge in the case organisation.

In 2006 Namasivayam, Miao and Zhao examines the relationships between compensation (direct and indirect) practices in hotel organizations and their performance. The results show that in the case of management employees, direct compensation fully mediated the relationship between indirect compensation and hotel performance.

Cho, Woods, Jang and Erdem (2006) focus the attention on the impact of HRM practices on hospitality firms' performance investigating the relationship between the use of 12 HRM practices and organizational performance measured by turnover rates for managerial and non-managerial employees, labor productivity, and return on assets. The results indicated that companies implementing HRM practices are more likely to experience lower turnover rates for non-managerial employees. In the same direction Watson, Maxwell and Farquharson explore different levels of line manager perspectives, namely strategic and first-line on their role in human resource management (HRM) and human resource development (HRD), and to identify enablers of and barriers to devolving HR to line managers. They found a number of points of divergence in opinions, implying that there is potential for the organisation to secure greater engagement of its first-line managers in HR roles. Focusing on Irish hotels, also Connolly and McGing (2007) show that Dublin-based hotels display some of the human resource practices associated with high performing work practices. There are, however, very low levels of employee participation, which many authors argue are the cornerstone of high performance practices.

Chand and Katou (2007) focus the attention on two linked aspects: to investigate whether some specific characteristics of hotels affect organisational performance in the hotel industry in India; and to investigate whether some HRM systems affect organisational performance in the hotel industry in India. They indicate that hotel performance is positively associated with hotel category and type of hotel (chain or individual). Furthermore, hotel performance is positively related to the HRM systems of recruitment and selection, manpower planning, job design, training and development, quality circle, and pay systems.

HYPOTHESES

As we explained before, the main goal of this paper is to investigate the relationship between HRM and performance in the Italian hospitality sector. Main literature studied this topic focusing the analysis on two framework: internal and external fit. In particular, we are going to measure the extent of the adoption of human resource management (HRM), the existence of a formal HR strategy, and the development of the HR function in the Italian hotel industry compared with Hoque's sample (1999) of hotels in the UK and Alleyene, Doherty and Greenidge survey (2006) in the Barbados hotels.

So, we know that appropriateness, or effectiveness, of HRM will vary depending on organizational life-cycle or the product market within the organization is operating. The first goal of this paper is to verify whether the effectiveness of HRM is contingent upon the approach to business strategy that has been adopted.

Hp. 1: Is External Fit Important Within Hospitality Sector?

Finally, it has been demonstrated that the introduction of HRM as a formal supported package of practices closely linked with the organization strategy improves performance. Here we are going to test whether the hotels which introduce a formal supported package of HRM practices outperform those have HRM practices, but not as a part of the organization strategy.

Hp. 2: Is Internal Fit Important?

EMPIRICAL ANALYSIS AND HYPOTHESIS TESTING

Data

The data we used are taken from “Rapporto sul sistema alberghiero in Italia” edited by Federalberghi in 2007. The research was done in two separate phases: in a first phase we selected a sample of 350 hotels including just those they have 65 bedrooms or more²⁹, representative of region and which have a star rating of 3 or more (on a rising scale of one to five); in a second phase we sent a structured questionnaire to the 350 hotels of the sample. 104 hotels answered the questionnaire, with a response rate of 29.71 per cent.

Method of analysis

In this paper it will be applied the same model of analysis used by Hoque (1999) and by Alleyene, Doherty and Greenidge survey (2006). So, it is possible to synthesize the model as following:

Dependent Variables

To define HRM practices, in the questionnaire it was asked to rate some HR outcomes (the commitment to the organization of lower grades of staff; the level of job satisfaction of lower grades of staff; the flexibility of staff; the ability of staff to move between jobs as the work demands; the quality of work of lower grades of staff; the quality of staff currently employed) on a scale of one (very low) to five (very high).

Then, to define the performance, in the questionnaire it was asked to rate some performance outcomes (How well does labour productivity at your hotel compare with the hotel industry average? How does quality of service at your hotel compare with the hotel industry average? How would you compare the financial performance of your hotel with the hotel industry average?) on a scale of one (very low) to five (very high).

Independent Variables

It is possible to see the measures of HRM used to test the relationship between HRM and the performance measures in Table 1.

<i>HRM practice</i>
<i>Terms and conditions</i>
Harmonized terms and conditions between management and non management staff
Single status for all staff
Internal promotion the norm for appointments above the basic levels
No compulsory redundancy

²⁹ In this way we can compare the our sample with the one reported in Hoque (1999).

<i>Recruitment and selection</i>
Trainability as a major selection criteria
Use of psychological tests as the norm for the selection of all staff
Deliberate use of realistic job previews during recruitment and selection
A formal system for communicating the values and systems in the company to new staff
<i>Training</i>
Deliberate development of a learning organization
An explicit policy requiring all staff to spend a specified minimum period annually in formal training
<i>Job design</i>
Flexible job descriptions that are not linked to one specific task
Deliberate design of jobs to make full use of workers' skills and abilities (i.e. use of job enrichment and/or autonomous work groups)
Work organized around teamworking for the majority of staff
Staff involvement in setting performance targets
<i>Quality issues</i>
Production/service staff responsible for their own quality
A majority of workers currently involved in quality circles or quality improvement teams
<i>Communication and consultation</i>

Regular use of attitude surveys to obtain the views of staff
A system of regular, planned team briefing or cascade of information from senior management to the lower grades/shopfloor during which work stops
All staff are informed about the market position, competitive pressures and establishment and company performance as a matter of course
<i>Pay systems</i>
A merit element in the pay of staff at all levels
Formal appraisal of all staff on a regular basis at least annually

Table 1: HRM Practices Used within the Analysis. Source: Hoque (1999).

Hypotheses testing

Hp. 1: Is External Fit Important Within Hospitality Sector?

According to Schuler and Jackson (1987) and Hoque (1999), HRM should prove effective only within hotels which emphasize a quality-enhancer or innovator approach to business strategy, and should prove ineffective the hotel's business strategy is focused on cost-cutting or price competition. So, according to Hoque's model (1999), respondents are asked to choose the two features that describe in the best way their approach to business strategy. The choices were price, quality, cost control, responsiveness to customer needs, advertising/marketing and providing a distinctive service.

On the base of the answer, it was possible to split the sample into three categories: (a) hotels that focus their business strategy on cost minimization or price competition; (b) hotels that focus their business strategy on quality enhancement (c) hotels that do not have a clear approach to their business strategy.

The measure of HRM which it is used in this analysis is cumulative in order to allow to rank the hotels from the "most HRM practices adopter" to the "least HRM practices adopter" on a rank from 0 to 21 (see Table 1) (0 = no HRM practices; 21 = all HRM practices adopted). By splitting the sample in the three categories described above, and then regressing this aggregate HRM variable on each of the dependent outcome variables, it will be possible to verify the effectiveness of HRM in each categories.

Hp. 2: Is Internal Fit Important?

Of the hotels adopting HRM practices, those introducing HRM practices as a strategic part of their own business strategy (Hoque says '*as a synergistic package of mutually supporting practices... as a coherent, institutionally supported synergistic package*') should outperform hotels which introduced HRM practice just in a normal operating way.

According to Hoque (1999), it was possible to split the sample into three categories: (1) 'strategic HRM' hotels, which are those above-average (14 or more) HRM practices strategically integrated with each other; (2) 'non-strategic HRM' hotels, which are those above-average (14 or more) HRM practices not strategically integrated; (3) 'low-HRM' hotels, which are those below-average (fewer than 14) usage of HRM practices.

If internal fit is important, the "strategic HRM" hotels should outperform the others.

RESULTS

External fit

Table 2 shows the presence of a link between HMR and all of the HR outcome measures. Deeply analyzing the subsamples, it is possible to find more differences. For “Others”, the link is perfectly replicated; for “Quality-enhancer” the link is replicated with the only exception of quality of staff; otherwise, for “Cost-reducers” it is possible to find a link only for the HR outcome organizational commitment, job satisfaction and staff flexibility. So, HRM would seem to be more effective among the quality-enhancer hotels.

<i>Organizational commitment</i>				
	<i>All hotels</i>	<i>Cost-reducers</i>	<i>Quality-enhancer</i>	<i>Others</i>
<i>HRM</i>	<i>0.016 (0.011)</i>	<i>0.028 (0.030)</i>	<i>0.123 (0.021)</i>	<i>0.105 (0.010)</i>
<i>n</i>	<i>104</i>	<i>24</i>	<i>51</i>	<i>29</i>

<i>Job satisfaction</i>				
	<i>All hotels</i>	<i>Cost-reducers</i>	<i>Quality-enhancer</i>	<i>Others</i>
<i>HRM</i>	<i>0.101 (0.033)</i>	<i>0.018 (0.021)</i>	<i>0.014 (0.034)</i>	<i>0.021 (0.042)</i>
<i>n</i>	<i>104</i>	<i>24</i>	<i>51</i>	<i>29</i>

<i>Staff flexibility</i>				
	<i>All hotels</i>	<i>Cost-reducers</i>	<i>Quality-enhancer</i>	<i>Others</i>
<i>HRM</i>	0.04 (0.015)	0.021 (0.046)	0.110 (0.032)	0.135 (0.047)
<i>n</i>	104	24	51	29

<i>Ability to move staff between jobs as required</i>				
	<i>All hotels</i>	<i>Cost-reducers</i>	<i>Quality-enhancer</i>	<i>Others</i>
<i>HRM</i>	0.081(0.012)	0.078 (0.134)	0.089 (0.022)	0.064 (0.043)
<i>n</i>	104	24	51	29

<i>Quality of work</i>				
	<i>All hotels</i>	<i>Cost-reducers</i>	<i>Quality-enhancer</i>	<i>Others</i>
<i>HRM</i>	0.066 (0.018)	0.095 (0.124)	0.043 (0.043)	0.110 (0.032)
<i>n</i>	104	24	51	29

<i>Quality of staff</i>				
	<i>All hotels</i>	<i>Cost-reducers</i>	<i>Quality-enhancer</i>	<i>Others</i>
<i>HRM</i>	0.044 (0.021)	0.044 (0.115)	0.068 (0.118)	0.049 (0.026)
<i>n</i>	104	24	51	29

Table 2: *The Relationship between HR Outcomes and HRM in Italian hotel industry*

Notes: Ordered probit analysis; Coefficients given (sig. in brackets).

Table 3 puts in evidence the relationship between HRM Practices and Organizational Performance in Italian hotel industry. It is possible to find a strong relationship between the extent to which HRM is used and all three performance measures. Analyzing the subsamples, however, it is possible to find a relationship only for quality-enhancer (with the exception of labour productivity) and Others. So, there is no evidence that the adoption of HRM practices improve performance where hotels put a premium on cost control within their business strategy.

Finally, it is possible to assume that the results support the hypotheses 1 that effectiveness of HRM is dependent upon congruence with business strategy. A positive correlation between the cumulative HRM variable and effectiveness exists only within quality-enhancer and 'other' hotels. Where hotels emphasize cost control or price competition, there is no relationship.

<i>Labour productivity</i>				
	<i>All hotels</i>	<i>Cost-reducers</i>	<i>Quality-enhancer</i>	<i>Others</i>
<i>HRM</i>	0.02 (0.021)	0.078 (0.123)	0.054 (0.131)	0.141 (0.042)
<i>n</i>	104	24	51	29

<i>Quality of service</i>				
	<i>All hotels</i>	<i>Cost-reducers</i>	<i>Quality-enhancer</i>	<i>Others</i>
<i>HRM</i>	0.087 (0.011)	0.012 (0.121)	0.134 (0.040)	0.081 (0.021)
<i>n</i>	104	24	51	29

<i>Financial performance</i>				
	<i>All hotels</i>	<i>Cost-reducers</i>	<i>Quality-enhancer</i>	<i>Others</i>
<i>HRM</i>	0.091 (0.019)	0.049 (0.141)	0.081 (0.032)	0.121 (0.030)
<i>n</i>	104	24	51	29

Table 3: *The Relationship between HRM Practices and Organizational Performance in Italian hotel industry*

Notes: Ordered probit analysis; R2 is pseudo; Coefficients given (sig. in brackets).

Internal fit

Here it should be possible to find evidence about the fact that hotels introducing HRM practices as a strategic part of their own business strategy should outperform hotels which introduced HRM practice just in a normal operating way.

Table 4 put in evidence that “strategic HRM” hotels routinely outperform the “low-HRM” hotels across all of the HR outcome measures. At the contrary, the “non-strategic HRM” hotels outperform the “low-HRM” hotels only where organizational commitment is concerned.

The results concerning performance outcomes has been reported in Table 4. It shows the impact of internal fit on performance. Whereas the “strategic HRM” hotels outperform the “low-HRM” hotels in terms of labour productivity, quality of service and financial performance, the “non strategic HRM” hotels outperform the “low-HRM” hotels on only on financial performance. The results here would seem to confirm the importance of introducing HRM practices as part of an institutionally strategic package.

	<i>Organizational commitment</i>	<i>Job satisfaction</i>	<i>Staff flexibility</i>
'Strategic HRM'	0.822 (0.020)	0.788 (0.011)	0.440 (0.024)
'Non strategic HRM'	0.491 (0.012)	0.521 (0.311)	0.320 (0.120)
<i>n</i>	68	68	68

	<i>Ability to move staff between jobs</i>	<i>Quality of work</i>	<i>Quality of staff</i>
'Strategic HRM'	0.610 (0.020)	0.910 (0.030)	0.710 (0.015)
'Non strategic HRM'	0.410 (0.121)	0.010 (0.310)	0.410 (0.210)
<i>n</i>	68	68	68

Table 4: Internal Fit and HR Outcomes

Notes: Ordered probit analysis; Coefficients given (sig. in brackets); 'Strategic HRM' = above-average no. of HR practices used and hotel has formal strategy; 'Non strategic HRM' = above-average no. of HR practices used but hotel does not have formal strategy; Omitted category = below-average no. of HR practices used ('low HRM')

	<i>Labour productivity</i>	<i>Quality of service</i>	<i>Financial performance</i>
'Strategic HRM'	0.590 (0.010)	0.810 (0.032)	0.810 (0.022)
'Non strategic HRM'	0.325 (0.345)	0.224 (0.129)	0.630 (0.010)
<i>n</i>	68	68	68

Table 5: Internal Fit and Performance Outcomes

Notes: Ordered probit analysis; Coefficients given (sig. in brackets); 'Strategic HRM' = above-average no. of HR practices used and hotel has formal strategy; 'Non strategic HRM' = above-average no. of HR practices used but hotel does not have formal strategy; Omitted category = below-average no. of HR practices used ('low HRM')

CONCLUSIONS

The main goal of this paper was to investigate the relationship between HRM and performance in the Italian hospitality sector focusing the analysis on two framework: internal and external fit. The analysis has been done in order to compare the results on the UK hotels by Hoque (2009) and those on Barbados hotels by Alleyne, Doherty and Greenidge (2006) with those of the present survey.

While Alleyne, Doherty and Greenidge found that the adoption of human resource (HR) practices was more prevalent in Barbados hotels than in the UK sample of Hoque work, for the Italian hotels it has been found a result similar to UK. For example, for Barbados, with respect to the existence of a formal HR strategy, the results were mixed and also show that in many respects the Barbados hotels are ahead of their UK counterparts in the development of the HR function.

So, external fit emerges as a fundamental key. A relationship between HRM and performance exists only among hotels emphasizing the importance of quality enhancement and among hotels in the "other" category. HRM proves ineffective where cost control is seen as the key to business strategy.

Looking at internal fit, there is evidence that higher performance has been found where HRM is introduced as a strategic part of their own business strategy.

The results here add to the conclusions reached by Hoque (1999), Ichniowski *et al.* (1994) and MacDuffie (1995).

The research has some limits and could be improved. For example higher performance was found in situations where the hotel emphasizes quality enhancement and adopted a wide range of HRM practices, but it is impossible to be sure about the causes of this result. In fact, it could be that the use of HRM practices caused high performance or that high performing hotels have a superior propensity to innovate in HRM practices.

Finally, it must be considered that the focus of the analysis was on larger hotels, as it is normal that their interest in HRM is higher than in smaller hotels. So, the results can not be assumed as representative of the hotel industry as a whole.

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AN INVESTMENT ADVICE AYSSTEM USING THE IMPLICIT KNOWLEDGE

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Purpose - The process of investment advice is neither in theory nor in practice very well structured and has a lack of itemisation. Usually based on a customer's risk attitude and his return expectation a portfolio is offered. This paper presents a knowledge based investment advice system that comprises all relevant attributes of the customer and that delivers customer specific investment proposals based on the knowledge of the investment advisers.

Design/methodology/approach - Based on literature review and an observance study in banks a holistic investment advice process is generated. An explorative study has been used to work out a questionnaire that helps to support the investment advice process and that delivers the attributes needed for a case-based reasoning investment advice system. The system will be used to generate a scenario for product proposals in investment advice.

Findings - It is shown that case-based reasoning systems can support the organisational memory in investment advice by generating customer specific investment product proposals.

Research limitations - There are a lot of problem areas with investment advice. The paper shows only selected aspects related to the use of implicit knowledge within investment advice.

Practical implications - The presented investment advice process and the generic investment advice questionnaire are ready to be used in practice. A software prototype could be developed based on the scenarios shown in the paper.

Originality/value - The paper shows deficits of the investment advice process in theory and practice. It shows approaches to solve them. The core of the solution is the use of a case-based reasoning decision support system.

INTRODUCTION

Nowadays the knowledge resource is one of the most important key success factors for financial services companies. The whole knowledge of the investment advice process must be considered as a core competency of a bank. By advising their customers proficiently and individually a bank can gain competitive advantages. That leads to increasing requirements for a qualified investment advice resulting also from globalisation of the markets, changed consumer behaviour and a different competitive environment.

During the investment counselling interview with the customer the bank will be able to sell better if there is a guided structured talk's process. Instead of only focussing on expected return and risk attitude one has to consider also needs, requests, interests and social and financial restrictions. There is a number of attributes and data of the customer to be collected to find out a preferably perfect portfolio for him. A standardised holistic investment advice process is needed which is not really available at the moment in practice.

The *investment advice process* is not very well structured in most financial services' companies, even in literature is not paid very much attention to it (Rehkugler et al 1992, p. 320). During the investment counselling interview the advisers usually collect several parameters with their relevant values to explore goals, needs and desires of the investor. Usually the data is collected based on an *investment advice questionnaire*. The experience and knowledge of the investment advisers are needed to derive certain information. An analysis of 42 questionnaires leaves the strong impression that the questionnaires of different banks vary not very much and that some of them could be improved very much from a quality perspective.

Furthermore it is difficult for the investment advisers to formulate the *investment goals of the investor* in a way that they will match with the suggested investment portfolio (Rehkugler et al 1992, p. 320). Based on the investment goal investment advisers often offer a sample portfolio to the customer based on *the Strategic Asset Allocation* worked out by the portfolio managers. Usually this is the case if the investor will be assigned to one of the standardised customer groups (Gügi 1996, p. 142). That might be the reason that in

practice the *Tactical Asset Allocation* is being regarded as less important. The Tactical Asset Allocation is based on the strategic one and underrates or overrates certain countries, branches or investment categories to align the portfolio ideally to the customer's needs. This process requires very experienced advisers and a lot of implicit knowledge.

There is and there will be always some uncertainty for the adviser when he works out an investment proposal. To find out a portfolio preferably fitting to the customer's needs a 100% lots of investment alternatives and a number of decision relevant attributes have to be considered. IT is needed because the number of relevant attributes is beyond the capabilities of the human being (Rossbach 1994, p. 5).

The paper shows in the first part a holistic and detailed investment advice process that has been generated with experts from banks and based on literature review. Following a generic questionnaire will be shown derived from an explanatory survey in the banking sector of the German speaking countries. At the end a case-based reasoning model is presented that allows making systematically use out of the experiential knowledge. Hence problems arising out of the use of sample portfolios can be avoided. One can submit proposals to the customer based on his individual needs and matching his targets and risk attitude adequately.

INVESTMENT ADVICE PROCESS

The holistic investment advice process can be divided in the sub processes „Customer Acquisition“, „Conduct first talk“, „Survey investment profile“, „Generate asset allocation“, „Buying decision“ and „After sales service“. The whole process has been designed based on interviews with practitioners from banks in Germany, Austria, Switzerland and Liechtenstein. The knowledge of the practitioners – usually investment advisers – has been matched with the literature covering generic advice processes (Spremann 2002, p. 12, Steiner 2002, p. 21) and specific investment processes of banks (Aigner and Vöcking 2002, p. 23). The following exhibit shows the result.

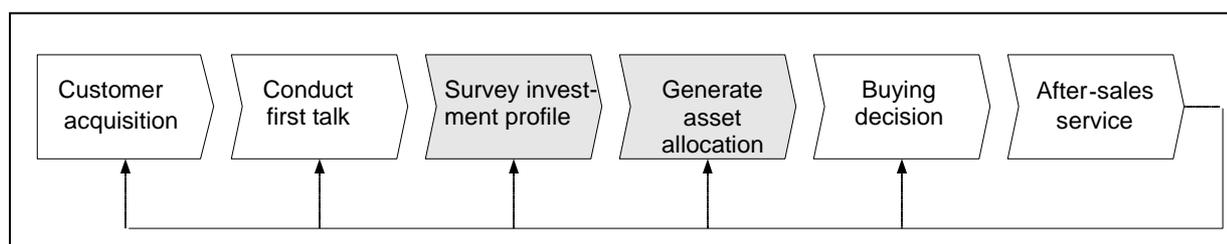


Exhibit 1: Holistic investment process

Before an advice process can start there has to be a customer acquired. During the sub process “Conduct first talk” the focus lies on locating the needs and desires of the customer, collecting customer's attributes, identifying the current financial circumstances (assets and liabilities) and learning about the knowledge and experience of the customer about investment (asset types, risks etc.). The so called “magical triangle of investment” comprising return, security and solvency helps to find out the risk attitude, the return expectations and the period of investment during the sub process “Survey investment profile”. That sub process requires a lot of experiential knowledge. The sub process “Generate asset allocation” refers to strategic and tactical asset allocation. The strategic asset allocation defines the allocation of asset types (e. g. shares, bonds, options) the allocation of countries and the allocation of currencies. Within the tactical asset allocation the whole investment is split into the several asset types. Sometimes according to the current capital market situation an overrating or underrating of assets types takes place leading to a portfolio proposal. Also that sub process requires a lot of experiential knowledge from the investment advisers. The customer finally decides what to buy. The “After sales service” process can be used to sell additional product to the customer.

DEFINITION OF ATTRIBUTES BASED ON A GENERIC INVESTMENT ADVICE QUESTIONNAIRE

An explorative survey has been conducted to design a generic investment advice questionnaire. Therefore questionnaires from 180 banks in the German speaking countries have been collected. 42 of them could be analysed which can be considered as representative. Comparing the questionnaires according to uniformity shows interesting results. There is almost no difference between the single countries in terms of collecting the customer's profile and the investment profile of him. Even the process to gather the data is very similar in all banks. There is a discrepancy if one compares the questionnaire of private banks with the one from universal banks. Private banks target the wealthy customer leading to a more detailed questionnaire and a higher attention to risk attitude and return expectation of the customer.

Universal banks use standardised questionnaires in most cases. Sometimes they even use form sheets with lots of space for notes and only a few standardised questions. As a result of the analysis one can state that a generic questionnaire can support the above shown investment advice process. The detailed results of the questionnaire analysis can be found in Benz (2008).

The generic questionnaire can support the investment advice process especially during those three sub processes:

- conduct first talk (gather customer data)
- survey investment profile and
- generate asset allocation.

During the first part data of the customer, his partner and their children will be collected. Some questionnaires even gather data of the hobbies of the customer. Usually the questionnaires include financial circumstances and investment experience too. To survey the investment profile questions of investment period, risk attitude and return expectation have to be answered. The attribute "Investment period" usually is represented in a fuzzy way, e.g. short-term, mid-term and long-term investment. Short-term, mid-term and long-term are not defined equally for all the banks. Also risk attitude is defined fuzzy in the questionnaires. Often a distinction is made between conservative, risk-averse, risk-happy, speculative and highly speculative. Other questionnaires distinguish between no risk, low risk, medium risk and high risk. The problem for the adviser is to transfer the fuzzy risk attitude into an investment portfolio. Some questionnaire use "what if" questions to state the risk attitude more precisely. No questionnaire in the survey used mathematical models like Bernoulli utility functions. Also the return expectations are not being measured accurately but fuzzy too, e.g. low, medium or high return. Based on the already mentioned "magical triangle" customers are assigned to one investment target, e.g. stability, income, return, growth or chance. For instance the target stability comprises a short term investment period, low return expectation and risk-aversity. During the last sub process the customer usually is asked for his preferences in the tactical asset allocation, e.g. currencies or branches.

KNOWLEDGE BASED INVESTMENT ADVICE SYSTEM FOR THE CREATION OF INVESTMENT PROPOSALS

One promising approach to create investment proposals for customers IT supported is case-based reasoning. Cases of existing customers with similar attributes and positive product experience shall be used for new cases. Empirical studies show that customers with similar attributes have comparable needs and expectations of their investments (Rossbach 1994, p. 13). The following exhibit shows as an example two customers with different attribute values. According to the knowledge of experts both can be regarded as similar to each other. Following the hypothesis of Rossbach there is a high probability that their investment needs and expectations are very similar too. That on the other hand fits perfectly to case-based reasoning.

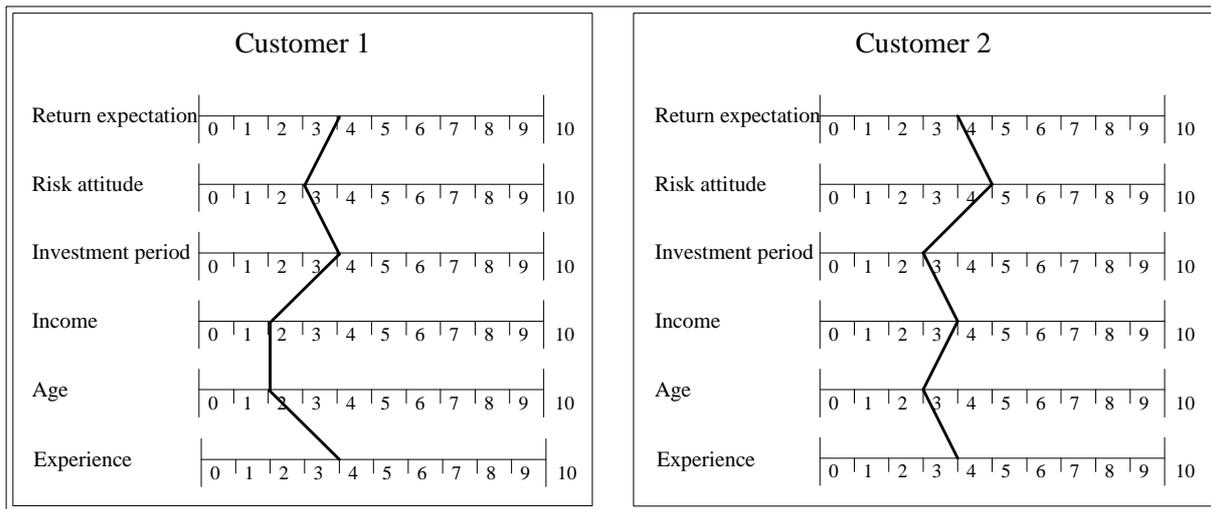


Exhibit 2: Example of a similar target profile

Case based reasoning systems base on a cycle comprising several sub processes. One of the most well known model is the one from Aamodt and Plaza shown in the following exhibit.

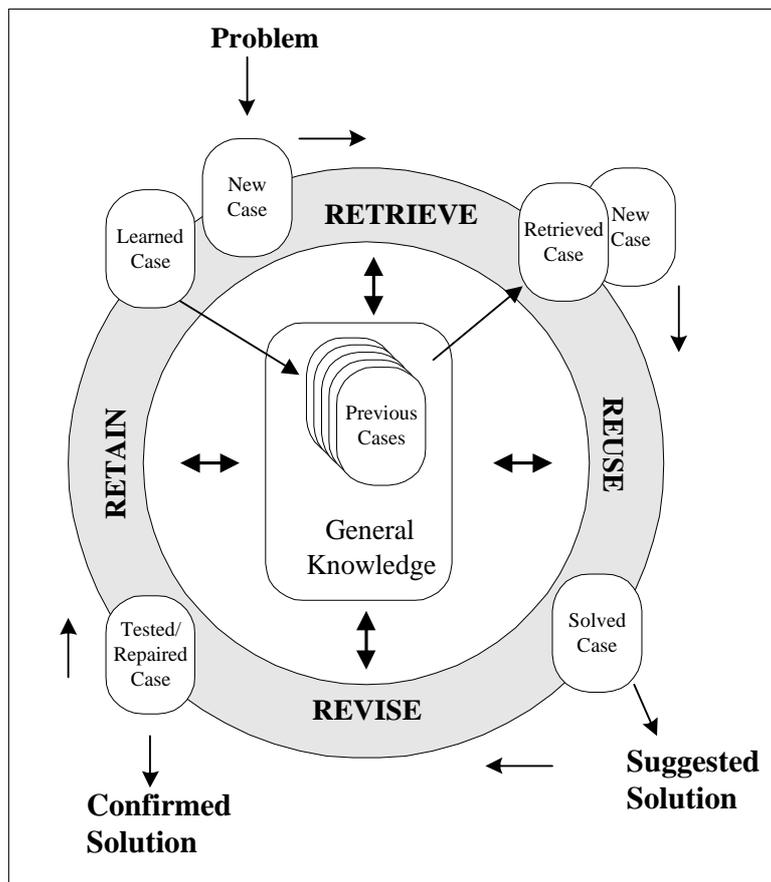


Exhibit 3: The CBR cycle. Source: Aamodt and Plaza 1994, p. 45

Aamodt and Plaza make a distinction between four sub processes: Retrieve, Reuse, Revise and Retain. Essentially for the model is the case base that contains a number of cases. Before discussing the four sub processes some terms will be defined.

A **case** is the description of a problem together with the knowledge gained while solving the problem (Bergmann 1996, p. 36). The cases contain the essential knowledge. A case consists of the problem description and the respective solution (Burkhard 1998, p. 18). Given a problem one tries to find a problem with similar attributes in the case base containing the implicit experiential expert knowledge. Has an experienced investment adviser solved a problem for instance, his solution (investment proposal) will be stored together with the problem in the case base. If another investment adviser is faced by a similar problem he can make use of the problem description of the experienced investment adviser and transfer the solution in the case base to his problem. A case F hence forms a pair (P, L) , where P is a problem and L an experience based solution for the problem. A **case base** is a suitable and organised collection of cases (Bergmann 1996, p. 36). Hence the sum of the cases in a case base can be considered to contain indirectly the experiential knowledge of the investment advisers. That can be used to solve new problems. The organisational memory is reflected in the case base. **Case based reasoning** is an approach to solve problems by using former cases and recycle former experiences (R. Bergmann 1996, p. 36). The case based reasoning cycle comprises the above mentioned sub processes.

The cycle starts with "**Retrieve**", where a similarity query to the case base takes place. First the user formulates a new problem. He gives a description of the problem with its attributes preferably completely. During the retrieve process one or a number of cases is selected, all of them suitable to solve a new existing problem (Bergmann 1996, p. 38). A suitable case can be found while judging similarity. Hence it is assumed that a new problem can be solved by applying successful solutions of former similar cases (Bergmann 1996, p. 38). Richter defines the retrieve-process as follows: „A query to a CBR system presents a problem and retrieves a solution using inexact matches with the problems from the cases in the case base.“ (Richter 1998, p. 9) During the **Reuse** sub process the attempt is made to use the knowledge from the retrieved cases. The information from the new problems is being connected to the one from the retrieved cases (Schaaf 1998, p. 8). While reusing the experience of the retrieved cases a solution for the new problem can be developed. According to Bergmann (1996, p. 40) in the reuse process a solution for the problem is defined by using the experience of the selected former cases. The **Revise** process helps to revise the solution found in the reuse step which can be modified if necessary. Revision can be done using either simulation or validation in the real world (Bergmann 1996, p. 41). If the new problem could be solved the gained experiences can be added to the case base in the **Retain** sub process. A decision has to be made whether each new experience will be added to the case base. Adding each new case to the case base might lead to a huge case base not being suitable for efficient retrieval. In case of not adding each case to the case base criteria have to be defined for the decision which case to add and which not (Bergmann 1996, p. 41). Based on that methodology the system becomes a learning one and the newly acquired knowledge can be used immediately in the next cycle (Schaaf 1998, p. 8).

Applying case-based reasoning to investment advice means customers can be described using the attributes gathered in the generic investment advice questionnaire. Hence data about customer's profile, his risk attitude and his return expectations can be collected during the three sub processes mentioned above: Conduct first talk, survey investment profile and generate asset allocation. This leads to three sub profiles for each customer:

- Customer profile (customer data, e.g. age, income, marital status)
- Investment profile (Risk attitude, return expectation, personal preferences)
- Asset allocation profile (Strategic asset allocation, tactical asset allocation).

Hence similar customers can be retrieved from the case base by searching for similar profiles. Based on similar customers with a good investment performance an investment proposal for the new case can be generated.

That investment proposal can be adjusted by the investment adviser according to the current and expected future capital market situation as well as to specific customer needs. The final solution can be stored in the case base finally. Hence the system is steadily learning and it supports the organisational

memory of investment advice. The following exhibit shows the concept for a case based reasoning system to create investment proposals.

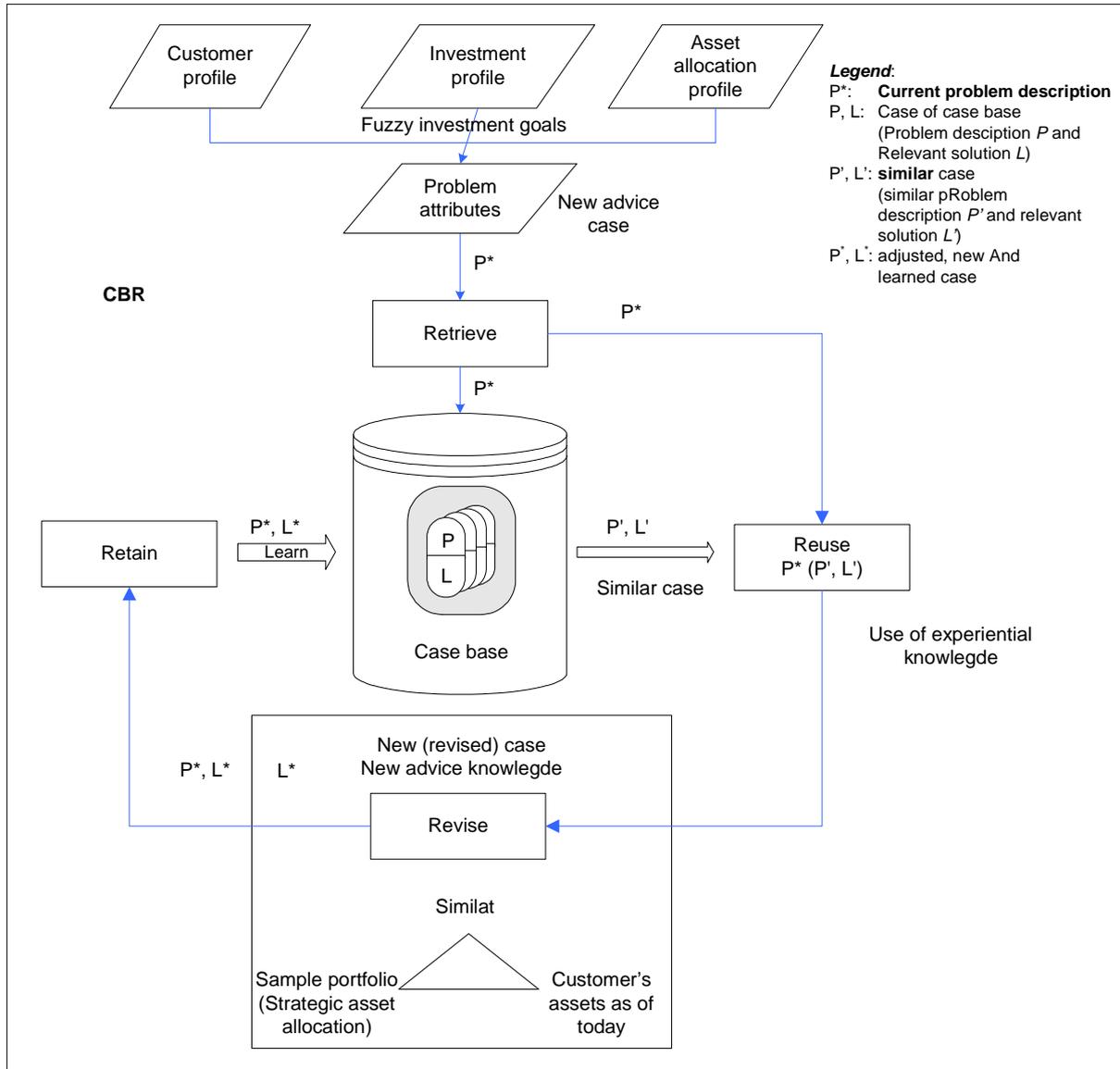


Exhibit 4: Model of a CBR system to create investment proposals

The aim of the case based reasoning system is it based on a new problem P^* (new customer) to retrieve similar already solved problems form a case base and use them to find a solution for the new problem. Hence the experiential knowledge of experienced investment advisers can be used.

The case base consists of a number of advice cases. Cases are being stored with their attributes and attribute's values (problem description P) as well as with their respective investments (Solution description L). Through the continuing addition of solved investment advice cases to the case base the case base itself becomes part of the organisational memory. Organisational investment advice knowledge is acquired, adapted and stored continuously.

During the investment advice process a number of attributes (Problem attributes P^*) of the investor is stored especially during the first sub processes. To retrieve similar cases from the case base similarity algorithms are used.

The similarity of two cases can be expressed by a similarity rate scaling the similarity values within the interval from 0 to 1. A similarity $\text{sim}(x,y) = 1$ means, that the attributes of x and y are equal, whereas a similarity $\text{sim}(x,y) = 0$ shows that there is no similarity between the attributes x and y at all.

The basic idea of case based reasoning is that the whole similarity of two cases can be determined through a comparison of the single attributes (Beierle, Kern-Isberner 2006, p. 185). One can distinguish two phases: First similarity in sense of *local similarity* is determined. This refers to values of single attributes. Then the values of all attributes of two cases are being aggregated to a *global similarity*. The similarity of two cases is determined by the number, the kind and the relevance of the single attributes. For the overall assessment of the global similarity relevance and number of the attributes are being integrated (Meyer 2001, p. 125; Biendarra 1998, p. 155). The following exhibit shows the two phases of similarity determination.

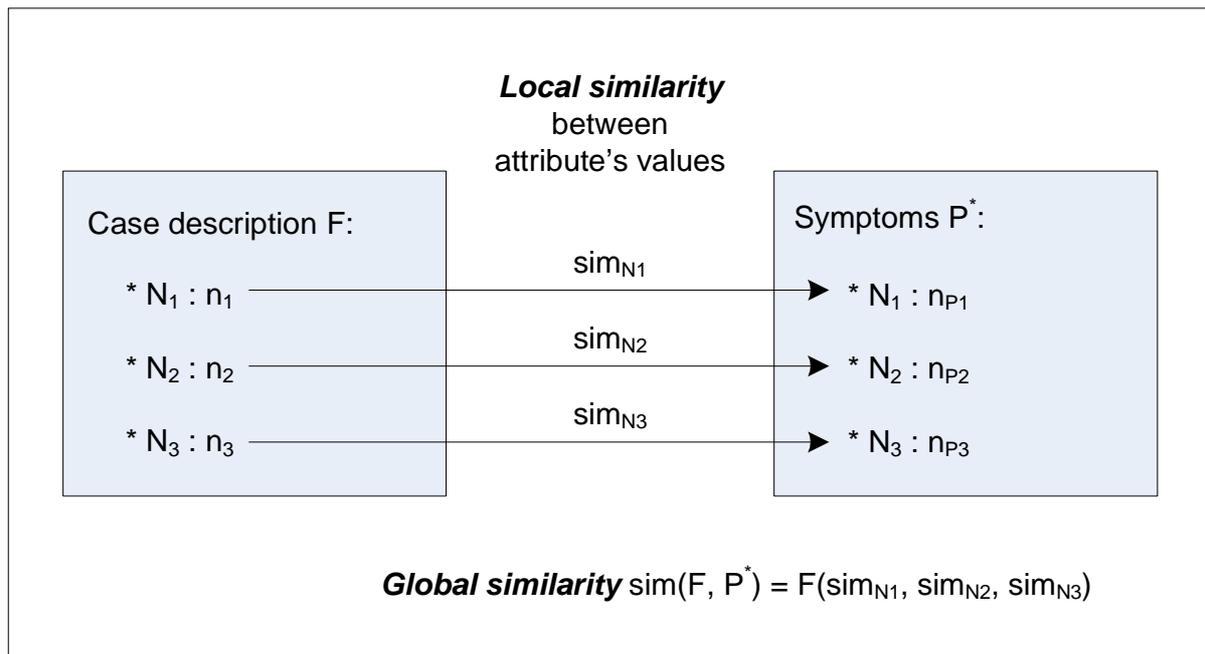


Exhibit 5: Similarity determination

The solution description L' with the problem description P' most similar to the current problem description P^* is considered being a possible solution for the current case. While reusing and revising the investment adviser can adapt the solution approach L' . Hence the most similar case (with the problem description P' and the solution description L') is applied to the current case P^* . The CBR system is a decision support system. At the end the investment adviser has to make a decision what to suggest the customer to buy. Similar customer portfolios can be used to work out investment proposals. The investment adviser is aware of the assets in similar portfolios and can use this knowledge to work out an investment proposal for the current case. The most similar case(s) support(s) his decision. During the whole advice process new knowledge is generated (judgement, adaptation etc.), the solution description L' is being amended with the problem description P^* leading to a new case (P^*, L^*).

The new case represents new advice knowledge. It can be added to the case base and hence enlarges the problem solving competency of the firm. By reuse of existing experiences the productivity of investment advisers can be increased and the organisational memory can be supported for the explicit part of investment advice (Basili, Rombach 1991, p. 303).

OUTLOOK

The paper shows a concept of a CBR system that could be implemented on a prototype basis in a bank. A holistic investment advice process in alignment with a generic investment advice questionnaire delivers all

data needed for the CBR system. Investment advice can be improved significantly by using a CBR system that makes use of the implicit knowledge of investment advisers.

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CONTROLLING IN PRACTICE - AN EMPIRICAL STUDY AMONG SMALL AND MEDIUM-SIZED ENTERPRISES IN GERMANY

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Purpose - Small and medium-sized enterprises (SME) are a major economic factor not only in Germany, but also in the European Union. Controlling is meanwhile indispensable for large companies but for SME controlling instruments seem to be applied very heterogeneously.

Design/methodology/approach - Therefore, an online survey especially directed on SME in Germany has been conducted^[1] to find out more about the relevance and the instruments of Controlling in SME. All in all 180 companies took part in the study.

Findings - It seems that in smaller companies operational controlling instruments are still more common than strategic ones and also the organisation of controlling activities is dependent on the company size.

Research limitations/implications - The study shall give a topical, general overview about controlling at SME to create an empirical foundation for further research activities in this domain.

Originality/value - The empirical study in total provides, also for practitioners, useful information about the application and design of controlling at SME in Germany.

Keywords: SME, Management accounting, Controlling instruments, Empirical study, Germany

Paper type: Research paper

INTRODUCTION

The small and medium-sized enterprise sector is considered crucial to European competitive development and represents the vast majority of the companies (Mulhern (1995), p. 83). Hence it is quite astonishing that a big portion of research in business administration focuses exclusively on large companies. Nowadays however a change can be identified. An increasing amount of publications, symposia and media presence about SME can be observed (Becker and Ulrich (2009), p. 2).

On the one hand side SME often confront restricted financial resources and a low equity ratio. On the other side many SME, because of the progressing globalisation and the eastern enlargement of the EU, are in a completely new competitive position. Due to the Basel II framework and the rating procedures which come along with it, SME are facing a further problem area (Müller (2006), p. 237; Rautenstrauch and Müller (2007), p. 1821; Berens and Wüller (2007), p. 393).

Controlling can contribute ensuring the survival of SME in the long run and helping to reduce costs of debt relating to Basel II. Due to the increased transparency the potential of cost cutting can be identified more easily. Furthermore, controlling can help that managerial decisions are determined on a more rational base. Controlling has become a widely used helpful and indispensable tool of the management of large companies. But controlling activities at SME should be beyond pure accounting (Krey and Lorson (2007), p. 1718; Rautenstrauch and Müller (2007), p. 1821; Kadosca (2006), p. 77).

Therefore, the following study focuses on the extension and organisation of controlling at SME. In a first part controlling in general is analysed and in the following the focus moves over to the controlling instruments that are used by the participating companies.

Controlling in Small and Medium-sized Enterprises

Controlling subsumes all instruments which help to coordinate the leading systems planning, surveillance, organisation and human resource management to achieve the company goals in an optimal manner (Wöhe (2002), p. 205). In general there can be observed controlling instruments, also strategic ones, becoming more and more important. Due to shortened Product Life Cycles, fluctuating degrees of capacity utilisation,

increasing overheads, controlling has developed to a crucial factor for small and medium-sized enterprises as well (Hegglin and Kaufmann (2003), p. 359).

In comparison to large-scale enterprises, controlling at small and medium-sized companies is differing regarding organisational issues and the scope of duties. Controlling at a SME typical tasks are broader straightened and the function of a controller can rather be seen as a generalist (Kummert (2005), pp. 155-167).

SME represent more than 90% of the European companies. According to a study in 2007 about 99% of the companies in Germany can be defined as SME. Those companies generate almost half of the German Gross Domestic Product (GDP) and provide almost 70 % of the jobs. Furthermore, SME are a significant resource for innovation and technological change hence they increase prosperity and the competitiveness of economies (Deimel and Kraus (2007) p. 155; Haufe Akademie (2007), p. 3).

There is no consistent generally accepted definition of SME. Definition of size classes based on accounting rules is partly in contradiction to definitions based on an economical base (Krey and Lorson (2007), p. 1717). In Germany mainly three different definitions are relevant given by the code of commercial law, the European Commission and a research institute focusing on SME, called "Institut für Mittelstandsforschung" (IfM).^[2]

EMPIRICAL STUDY

Design/methodology/approach

Main intention of the study is to find out, how SME evaluate the importance of controlling and how widespread controlling instruments in small and medium-sized companies are. The survey focuses at the beginning on SME and controlling at SME in general and later on, the focus switches on controlling instruments in detail which are used in the participating companies.

Therefore, an online-survey was launched in the period of December to the beginning of February under support of the "Internationaler Controller Verein eV" and the software company SBS Software GmbH which was directed especially to small and medium-sized enterprises.

180 companies of different branches answered to the questionnaire. 19 of the 180 completed questionnaires were excluded from the analysis because they had more than 500 employees and hence could not be considered as SME.

The number of employees was used to build size ranges, without considering turnover. All companies up to 500 employees were taken into account in the results of the analysis. For the examination the participating companies are classified into four size-classes. First category is up to 10 employees also defined as micro-sized SME. The next category enfolds companies up to 50 employees. The third category includes companies up to 250 employees and finally the last size-class includes companies up to 500 employees.

The survey was created with help of the Open Source Tool Limesurvey.^[3] In order to get clear analysable results, the authors of the study mostly set aside open answers and used instead well defined multi-choice-questions.

The study shall provide a topical basis and overview about controlling at SME in Germany. Further empirical analyses e.g. multi-factor analyses are not part of the research approach in this paper. Rather the aim of the study is to create an empirical foundation for further research activities in this domain. So further research activities in this area are necessary.

RESULTS

The first question asked for the position of the participants who answered the survey. This information can be used to make a statement concerning the quality of the results and gives a first indication how controlling is organised in the participating companies. The results turned out to be as figure 1 shows:

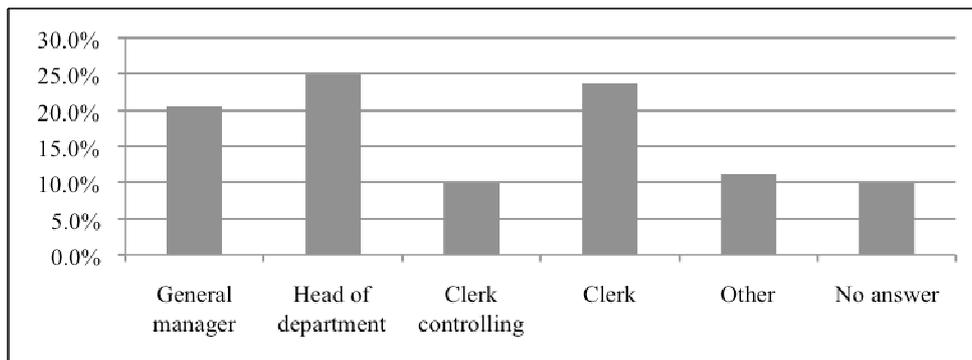


Figure 1: Which position do you hold in the company?

Lion's share constitutes the head of department followed by clerks in general. Noticeable is, that clerks in controlling departments are representing the smallest group participating in the study. This could be an indication for the under representing position controlling clerks still have in SME in comparison to larger companies. The category "Other" comprehends mostly proxy holders, IT-clerks and external controllers.

In the following the amount of employees as central attribute for classifying the companies will be dealt with. Figure 2 illustrates the results:

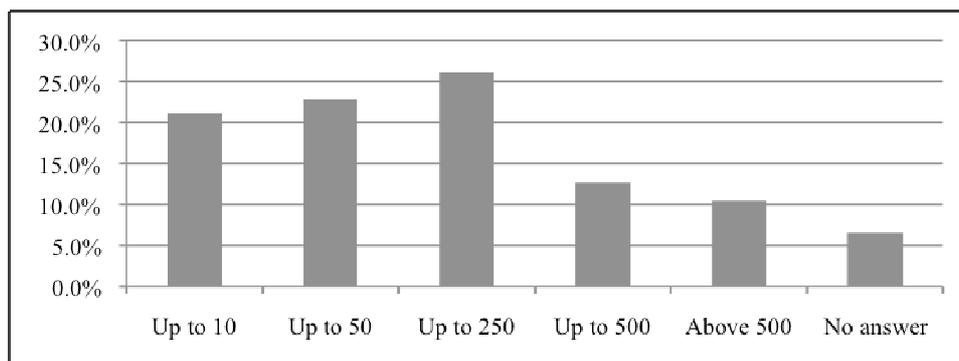


Figure 2: What is the headcount of the company?

Most of the 180 participating companies consist of up to 250 employees. Medium-sized companies up to 500 employees represent about 13 %. Large companies above 500 employees represent 11 %. These 19 companies were not taken into account in the evaluation of the study. Though they conduce as reference to SME concerning e.g. the headcount of clerks in controlling and the success of the company in comparison to competitors.

By taking a look on the measure turnover the results of the study can be shown as follows in figure 3:

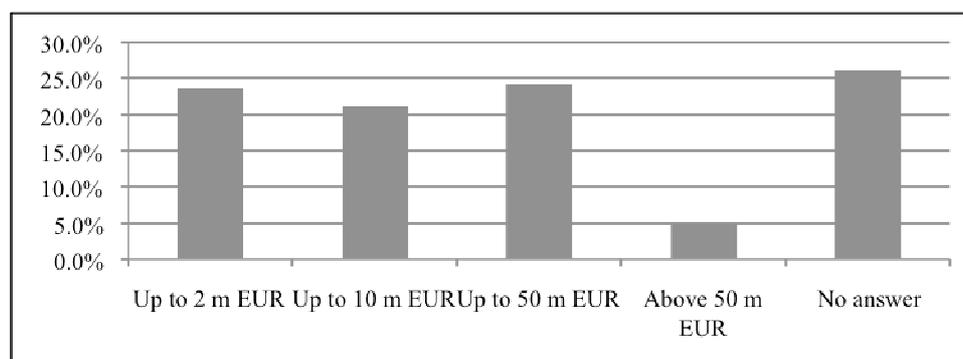


Figure 3: What is the amount of the turnover in the last financial year?

The results regarding the turnover resemble the above shown results concerning the headcount. A turnover up to 50 m EUR appeared most frequently with 24.2 %. In this category mostly companies up to 250 employees can be found. Only companies exceeding 250 employees generate a turnover above 50 m EUR. Micro-companies up to 10 employees fall under the category up to 2 m EUR turnover, with an exception of two companies. Explanation is needed that over 25 % of the companies did not answer the question. Typically in SME measures as turnover, operating result or rate of return are rarely brought into public, in order to avoid giving too much information that can be used by competitors. Often SME are in family property which enforces the unwillingness to share information. Although there is a disclosure requirement for corporate enterprises, often this is not complied with until a registration court asks for disclosure. It is of course to mention that turnovers from different sectors or branches can hardly be compared.

The next question focused on the age of the participating companies. Figure 4 illustrates the empirical results and shows the spreading of the age pattern:

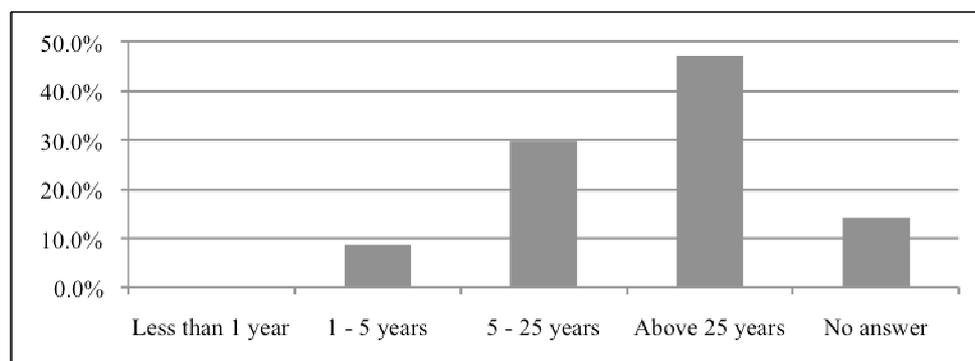


Figure 4: How long is your company respectively organisation already existing?

The figure shows that the majority of the companies is older than 25 years (47 %) and can be described as grown companies which seem to be typical for the SME sector in Germany. In this class almost 70 % of the companies count up to 250 employees. Also the age pattern 5 – 25 years pointed out to be strongly represented with nearly 30 %. Start-up-companies existing of less than 1 year did not attend the study.

An important criterion to find out whether the study is giving a representative profile of the SME sector is the industry classification of the participating companies. The following figure gives an overview in which branches the companies are operating:

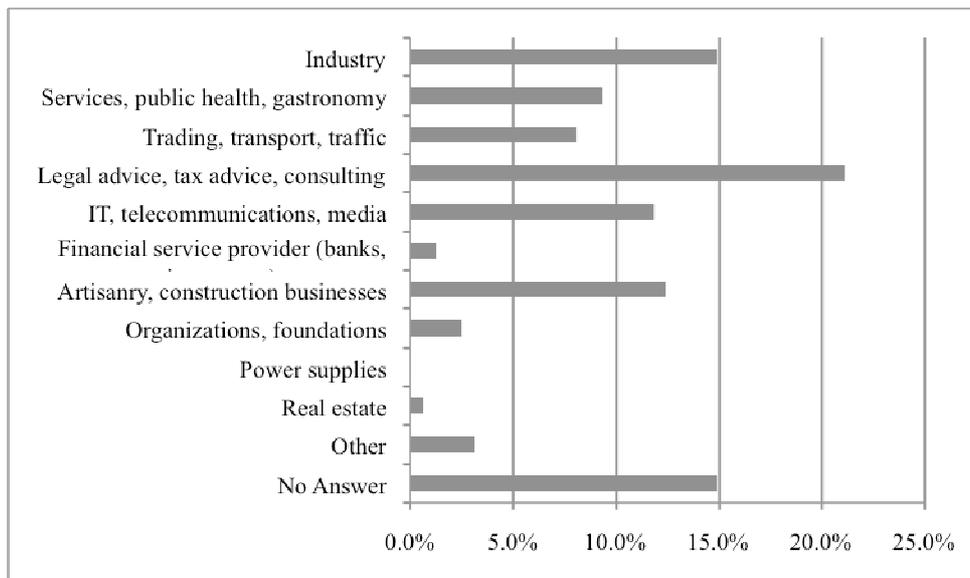


Figure 5: Which is the main sector your company is operating in?

Approximately 21 % of the participating companies have their core business in legal advice, tax advice respectively consulting. Most of them are micro-sized companies with up to 10 employees. The second largest sector represents the industry sector with 14.9 %. Regarding the headcount the companies mostly consist of more than 50 employees. Besides that the artisanry sector represents 12.4 % and telecommunications sector 11.8 %. The artisanry companies mostly consist of less than 50 employees. The tertiary sector service represents almost 9.3 % and is equally allocated between the company sizes. A power supply company was not covered by SME. However, only one single company with more than 500 employees in this sector participated the study (Excluded in the SME -specific part of the study).

In the following, the relationship between the different branches and the company size will be examined more precisely. 12 Companies which did not give information about their headcount were not considered in the following figure:

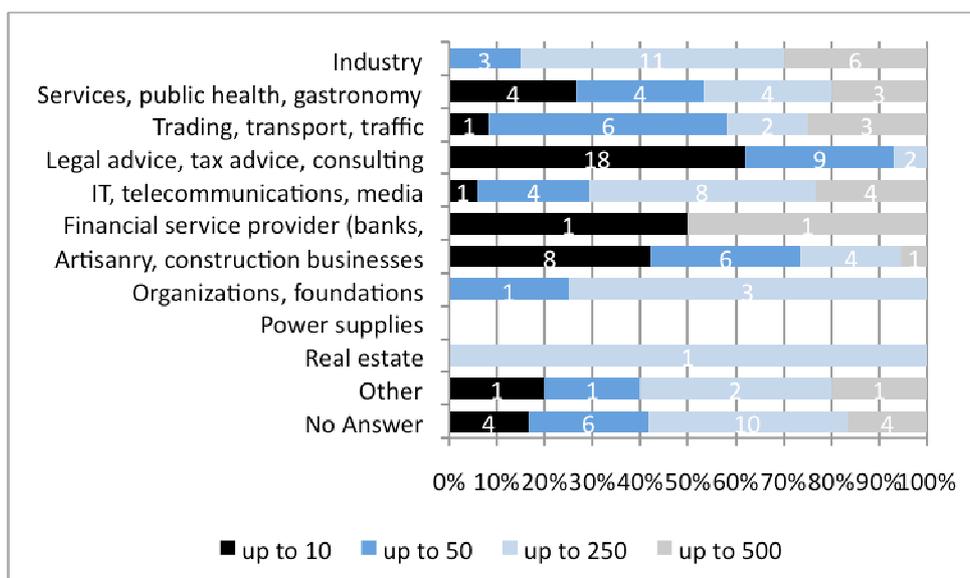


Figure 6: How is the tendency between operating branch and headcount?

The empirical results show in detail that micro-companies up to 10 employees are often operating in the fields legal advice, tax advice, consulting and artisanry. By regarding the companies with up to 50 employees there can be observed a wide variety of different branches. Focusing on companies which have over 50 employees, there is a clear tendency that companies are operating in the industrial sector or in IT-respectively telecommunications sector. In both sectors the part of companies above 50 employees with 6 respectively 4 companies is the highest one.

A very interesting and specific matter concerning SME is, whether companies employ staff specifically for controlling purposes. For this reason the following illustration shows, whether the participating companies have specialised controlling staff or not.

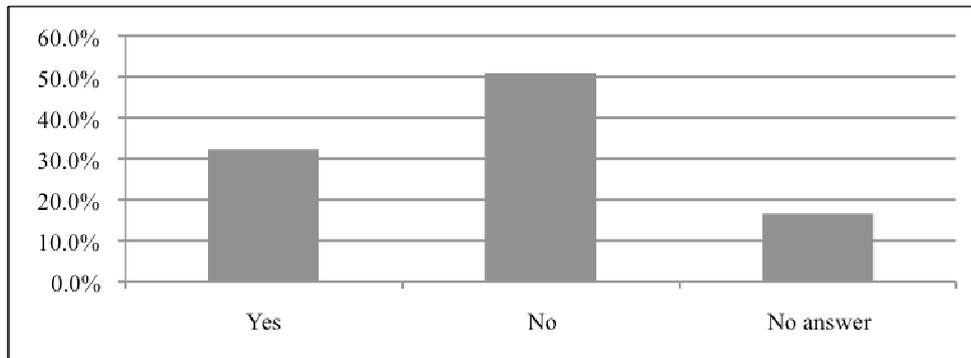


Figure 7: Do you employ staff that is specifically responsible for controlling matters?

The study shows that only 32 % of the SME possesses specialised controlling staff. Among companies up to 10 employees only one company answered the question with a yes. Not a single company up to 50 employees has the availability to benefit from specialised controlling staff. In contrast, 63.6 % of the companies up to 250 employees have at least one position for an employee focusing on controlling matters. On inspection of companies up to 500 employees actually 89.5 % offer at least one controlling position. So there can be observed the strong tendency that with increasing size of the company, controlling as an enterprise function becomes more and more important. In smaller companies the controlling task might be performed by the management itself. Due to the analysis of the headcount mostly the industry sector and the IT respectively telecommunications sector is strongly represented in the size ranges up to 250 and up to 500 employees. This allows the conclusion that specific controlling positions are very common in these classes of business.

In comparison to that an empirical research in 2007 under SME in the northwest of Germany identified 38 % of the companies employing a specific controlling position. Even though most of the attending companies, in total 209, generate a turnover of less than 10 m EUR (38%) and the headcount is up to 50 (43 %), it can be observed that controlling has become more important in comparison to empirical studies in the same area in the past (Wilken (2007), pp. 3-4).

For gathering more information about the importance of controlling among the respondents, the next question deals with the number of controlling employees. The following figure 8 illustrates the results:

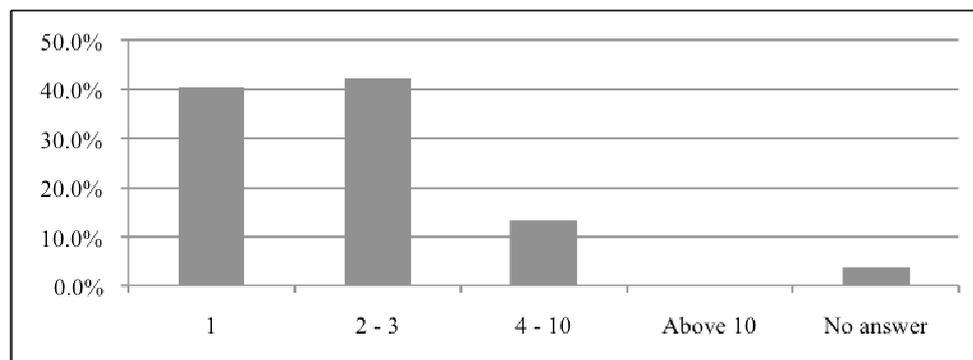


Figure 8: How many employees focused on controlling are working in your company?

Almost 42 % of the companies are employing 2 - 3 employees. These are mostly companies with a size up to 250 and a turnover up to a value of 50 m EUR. The category above 10 refers to large companies with a headcount higher than 500 employees and shall emphasise the importance the company size has with respect to the number of controlling positions. Nearly 26 % of the large companies employ more than 10 controlling employees and merely 10.5 % are having only one position.

Furthermore it is interesting in which department controlling activities are integrated respectively which department is responsible for controlling matters. The results of the question turned out to be as follows:

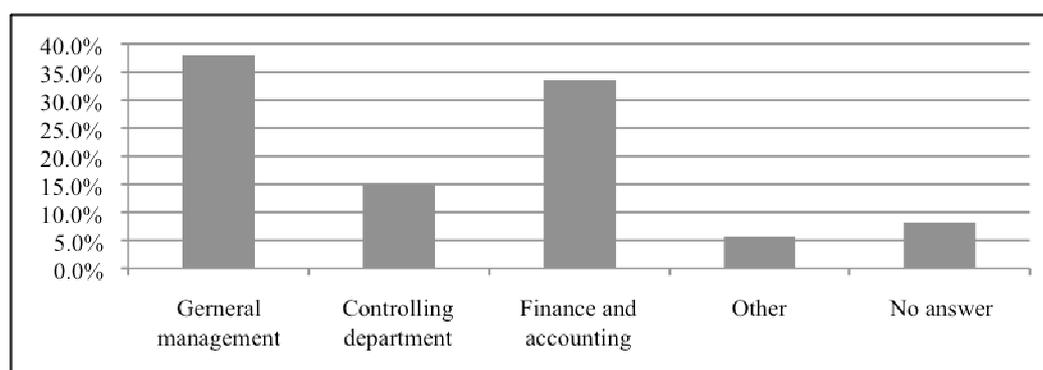


Figure 9: Which department is responsible for controlling activities?

Predominantly, general management is doing controlling activities by itself with approximately 37 %. By splitting up the result among the different size classes, a more differentiated trend can be observed. In micro-sized companies up to 10 employees the controlling function is done by the general management in 68.9 % of the companies. In companies up to 250 employees there can be observed with 42.2 % a declining number of companies in which general management is fulfilling the controlling function. The situation is eminently different when focusing on companies up to 500 employees. If so, in only 26.3 % of the cases general management is doing the controlling. So it can be stated that with increasing size general management is less involved in controlling activities.

However, controlling functions are often taken over by finance and accounting. In almost 34 % of the companies there can be observed this constellation. Solely in 14.9 % of the cases controlling departments are doing controlling activities directly. This occurs with 47.4 % mostly in company sizes above 250 employees.

In approximately 19 % of the interviewed companies controlling activities are provided by two departments that means controlling function is divided between two departments, mostly general management and finance and accounting. In five companies controlling activities are even split among three departments, general management, controlling department and finance and accounting.

After analysing the institutional organisation of controlling it is, furthermore, a matter of particular interest in which time intervals measures of planning and controlling are calculated. Figure 10 illustrates the reporting quantity:

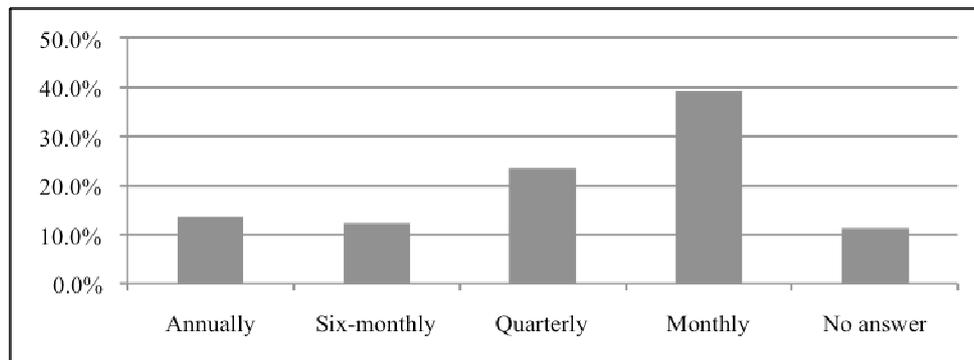


Figure 10: In which time intervals controlling reports are provided?

With approximately 40 %, most of the participating companies are reporting on a monthly base. Foremost, this is the case in companies with more than 50 employees. A quarterly determining of controlling measures mostly occurs in small companies with a headcount up to 50 employees. On the contrary, at micro-sized companies a yearly reporting is quite common, only one company above 250 employees stated to do a yearly calculating of controlling measures. By regarding the cohesion of a six-monthly interval of reporting controlling figures and company size, there is no prevailing tendency towards a single company size.

Also a matter of interest is a statement of the participating companies about the importance of controlling activities in general, and if there appears a divergence of grading the importance of controlling on one side and implementing controlling in the company's routine on the other side. For that reason the next figure shows details about the grading of controlling with regard to the importance:

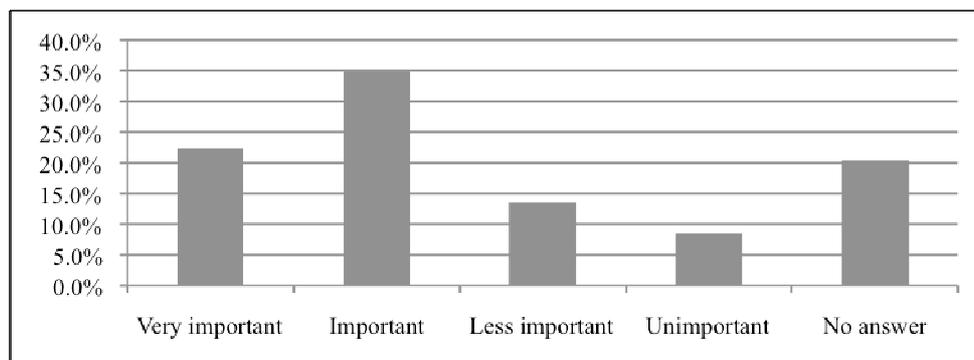


Figure 11: How important is controlling in your company?

For more than 57 % of the participating companies controlling is very important or at least important, predominantly companies with more than 50 employees. About 22 % of the companies grade controlling as less important or unimportant. In general, there can be observed a positive appraisal of the importance of controlling at SME. Only a marginal part of the participating companies attaches unimportance to controlling. This occurs mostly at micro-sized companies up to 10 employees (78.6 %).

The next question was focused on how companies see the future development of the relevance of controlling in the own companies. Figure 12 illustrates the results of the survey:

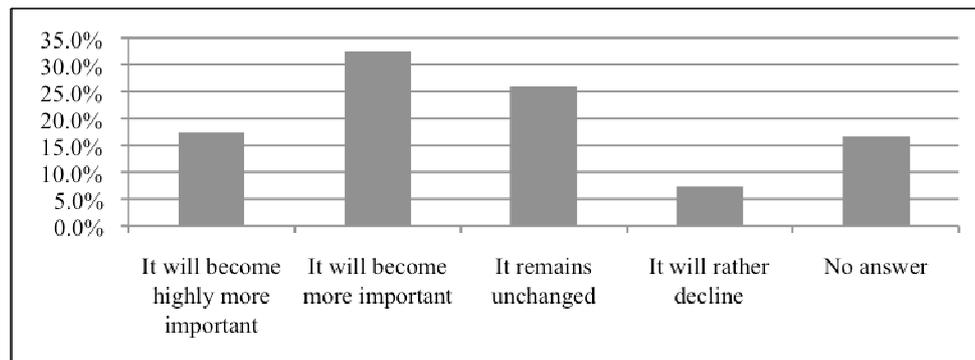


Figure 12: How will the relevance of controlling develop in the next few years?

The chart shows clearly, the estimation of the SME controlling will become more important in the next few years. Less than 8 % advance the view controlling will become less important for them in the future. Over 32 % are of the opinion that the importance of controlling will increase. This statement fits mostly for companies with more than 50 employees. 17.4 % think that controlling will become highly more important in the next few years. For the most part, companies above 250 employees agree with this statement (38.8 %).

After analysing controlling in general at SME, the empirical study is now focusing in specific on the controlling instruments which are used in practice in the participating companies. The results are sorted according commonness of the different controlling instruments. The following figure 13 shows the results in detail:

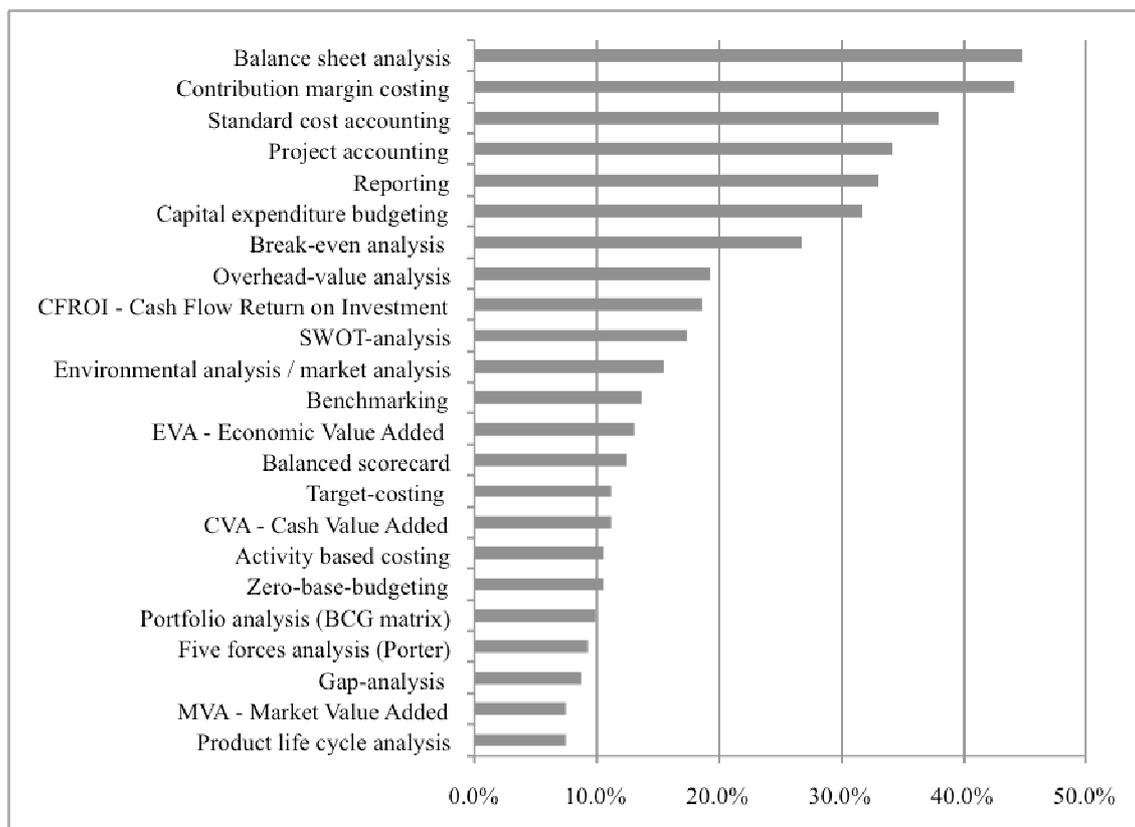


Figure 13: Which of the following controlling instruments are already used in your company?

First of all it is interesting that operational controlling instruments are more widespread than strategic ones. The most common controlling instrument is the balance sheet analysis with 44.7 %. It has to be

mentioned that balance sheet analysis itself does not fully fulfil the needs of controlling by variance analysis. Without a comparison with planned figures it just analyses the past. Balance sheet analysis is used in micro-sized companies in 21.1 % of the cases. In 91.5 % of the companies up to 250 employees and 91.3 % of the companies up to 500 employees the balance sheet analysis is in use very frequently. Concerning the contribution margin costing there is a similar result (44.1 % in total). After differentiating the use of the instruments among the size-classes the results are for companies up to 10 employees a 42.1 %, for companies up to 250 employees a 70.2 % and finally for companies up to 500 employees a 95.7 %. There can be observed a very similar distribution among the different size-classes focusing the controlling instruments reporting and standard cost accounting.

Surprising is the relatively high appliance of the overhead-value analysis (19.3 %). This seems to be overstated and raises the question, if this instrument is known at all in every company which participated the survey.

Strategic controlling instruments are mostly used in companies with more than 250 employees. Environmental analysis respectively market analysis is used in 78.3 % of companies with more than 250 employees and SWOT-analysis is with 87 % also very common in this size-class.

Value based performance measures like EVA[®] are in usage in 52.2 % of the companies up to 500 employees, MVA in 39.7 %, CFROI in 65.2 % and finally CVA in 56.6 % of these companies. But in the smaller size classes value based performance measures are used very rarely.

In general there can be observed the tendency that smaller companies are restricted mostly on operational controlling instruments like balance sheet analysis, contribution margin costing, standard cost accounting, project accounting, reporting, capital expenditure budgeting, break even analysis. The bigger the company, the higher is the potentiality to find also strategic concepts in use.

However, disputable is the number of companies not answering the question. Therefore, figure 14 shows in detail the response behaviour of the participating companies.

	<i>In use</i>	<i>Not in use</i>	<i>Use planned</i>	<i>No answer</i>
<i>Balance sheet analysis</i>	44,7%	10,6%	3,1%	41,6%
<i>Contribution margin costing</i>	44,1%	8,1%	3,7%	44,1%
<i>Standard cost accounting</i>	37,9%	14,9%	1,9%	45,3%
<i>Project accounting</i>	34,2%	16,8%	2,5%	46,6%
<i>Reporting</i>	32,9%	11,2%	3,7%	52,2%
<i>Capital expenditure budgeting</i>	31,7%	14,9%	2,5%	50,9%
<i>Break-even analysis</i>	26,7%	15,5%	5,6%	52,2%
<i>Overhead-value analysis</i>	19,3%	28,0%	2,5%	50,3%
<i>CFROI - Cash Flow Return on Investment</i>	18,6%	23,6%	2,5%	55,3%
<i>SWOT-analysis</i>	17,4%	23,0%	3,1%	56,5%
<i>Environmental analysis / market analysis</i>	15,5%	21,7%	3,7%	59,0%
<i>Benchmarking</i>	13,7%	26,1%	1,9%	58,4%
<i>EVA - Economic Value Added</i>	13,0%	26,1%	1,9%	59,0%
<i>Balanced scorecard</i>	12,4%	24,2%	3,7%	59,6%
<i>Target-costing</i>	11,2%	27,3%	3,1%	58,4%
<i>CVA - Cash Value Added</i>	11,2%	28,0%	1,9%	59,0%
<i>Activity based costing</i>	10,6%	30,4%	3,7%	55,3%
<i>Zero-base-budgeting</i>	10,6%	29,8%	2,5%	57,1%
<i>Portfolio analysis (BCG matrix)</i>	9,9%	28,0%	0,6%	61,5%
<i>Five forces analysis (Porter)</i>	9,3%	28,6%	2,5%	59,6%
<i>Gap-analysis</i>	8,7%	29,8%	1,9%	59,6%
<i>MVA - Market Value Added</i>	7,5%	28,6%	1,9%	62,1%
<i>Product life cycle analysis</i>	7,5%	31,1%	0,6%	60,9%

Figure 14: Which of the following controlling instruments are already used in your company?

There can be discovered a trend not answering the question increases with strategic respectively value based performance measures. Probably a conclusion could be that SME, especially smaller SME, could not deal with this kind of controlling instruments. Furthermore, the statement of SME companies that controlling is very important or at least important, as shown above, raises the question, if there is a lack between appraisal of controlling in general and the implementation of specific controlling instruments in practice. Even the typical traditional controlling instruments like balance sheet analysis or contribution margin costing have with more than 40 % a comparatively high rate of refusal answering the question. Another explanation could be the closeness of SME companies to make public internal information. Despite of that, the basic statement that smaller companies are focusing on operational methods and with increasing size, the instruments are widening towards strategic controlling instruments can be hold.

The next question proceeds with the evaluation of the above mentioned controlling instruments. Therefore, the participating companies were asked after their satisfaction of the instruments which are in action. Figure 15 illustrates the results:

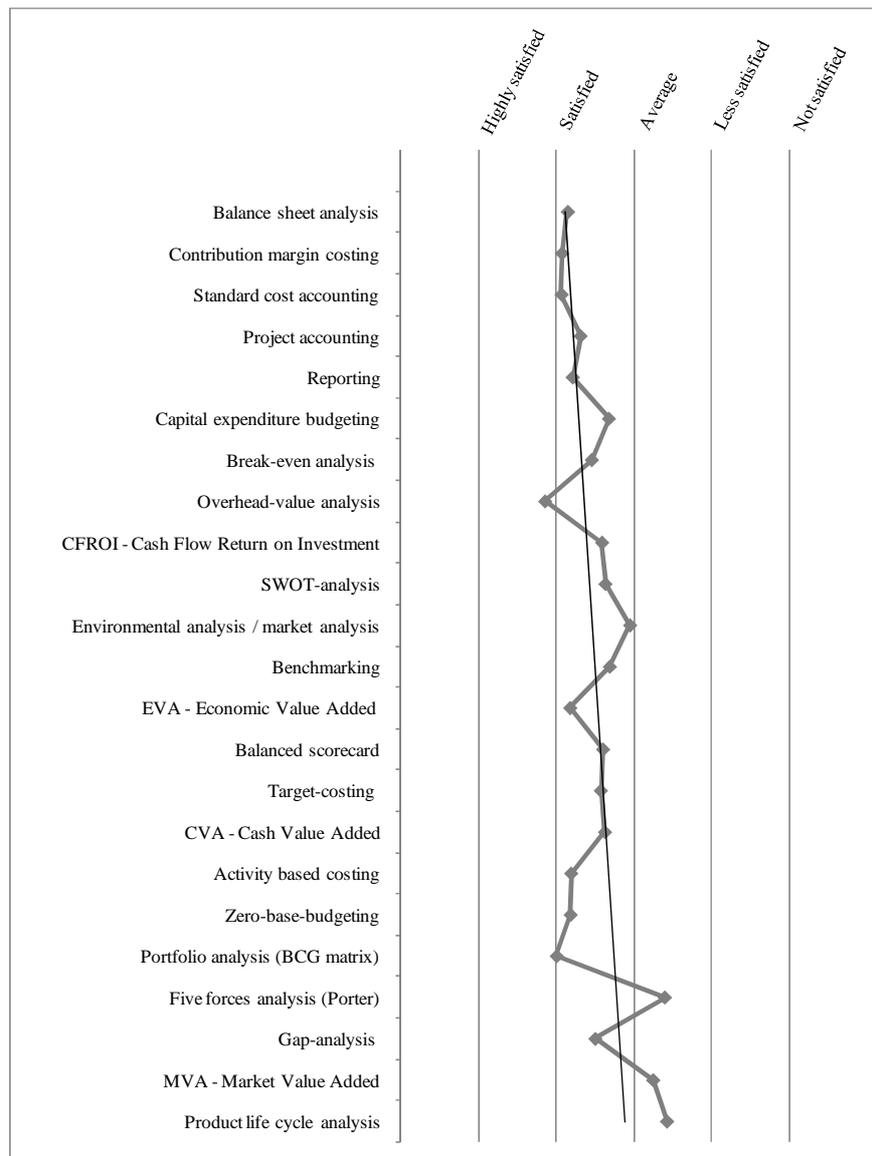


Figure 15: How satisfied are you with the following controlling instruments in your company?

In general there can be observed a trend companies can cope quite well with operational instruments. Satisfaction in this area is in principle existent. Though satisfaction is decreasing with strategic respectively value based instruments. Especially at smaller companies there is noticeable a lower satisfaction in the strategic area in comparison to larger companies.

Closing the study, the participating companies were finally asked after their evaluation of the economic success in comparison to other companies. The results turned out to be as follows:

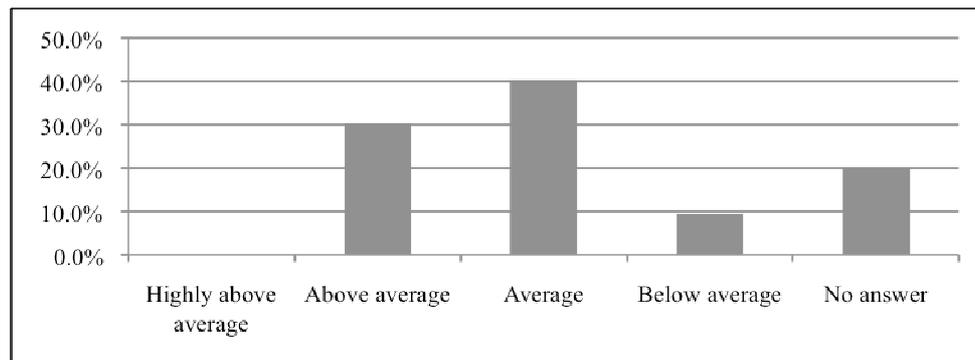


Figure 16: How do you evaluate the economic success of your company in comparison to the other companies?

More than 40 % of the companies estimate their success as average. This applies with 70 % mostly to companies up to 50 employees. Currently 30 % rank their success as above average. Particularly companies up to 250 employees are with 63.3 % of this opinion. Merely 9.3 % rank their success as below average. Hereby mostly micro-sized companies classify themselves as below average (73 %).

None of the SME companies estimate their success as highly above average. But participating companies above 500 employees did so with 42.1 %.

CONCLUSION

Principal objective of this paper was to analyse the results of an empirical study among SME in Germany with respect to controlling in general and the applied controlling instruments in practice.

Concerning the structure of the participating companies there can be assumed that the sample of companies represents a balanced allocation that means no size-range is excessively dominating the other ones. Also the appearing branches seem to be typical for the German SME sector. Therefore, it can be expected that the findings of the study can be characterised as representative for SME in Germany.

In general, there can be observed a positive connection between the company size and the organisation of controlling in respect of employing staff which is especially responsible for controlling matters and also the number of special controlling staff. Also it can be stated that with increasing size of the company general management is less involved in doing controlling.

The reporting quantity is approximately in 40 % of the companies a monthly reporting. Also a quarterly reporting is widely common at SME. For the majority of 57 % of the attendees controlling is very or at least important and most of the companies presume controlling becoming more important in the next few years.

Focusing on the different controlling instruments it can be concluded that operational controlling instruments are more widespread than strategic respectively value based ones. There can be observed the tendency that smaller companies are restricted mostly on operational instruments, however, with increasing size companies are also opening towards strategic instruments. Regarding the satisfaction of companies with the implemented instruments there is a higher satisfaction with operational instruments though the satisfaction is slightly decreasing regarding strategic concepts.

NOTES

^[1] The authors thank the SBS Software GmbH and "Internationaler Controller Verein eV" for their support.

^[2] For this: Handelsgesetzbuch 2008, § 267 I-II; European Commission (2006), p. 14 and IfM (2009). For more information see Becker and Ulrich (2009), pp. 3-5.

^[3] For more information visit <http://limesurvey.org>.

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THE CASE STUDY OF AN ITALIAN PUBLIC UNIVERSITY: A NEW APPROACH IN THE ORGANISATION

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Purpose - This research takes into consideration the study of an Italian Public University which has felt the need to reorganize its structure in order to reach its final goal to guarantee a better service all round.

The structure of this educational organization is characterized by nineteen Autonomous Bodies composed by seven Faculties and twelve Departments. The Faculties have an educational output and departments have an output identified by research activity.

The aim was to substitute the "segmentated" running of the Autonomous Bodies (departments and faculties) with one which has common goal for everyone. An overall view is essential to be able to comprehend the complex situation. In order to reach this goal it's important for this university to know and to manage the own processes.

The goal of this project is to identify a method that allows to reduce the bureaucracy caused by the Autonomous Bodies who act as a go-between for the University and the external agencies which represent the welfare system (insurance, pensions).

Design/methodology/approach - The research has been conducted through an empirical analysis of exploratory case study and the results are based on interviews.

In fact we have interviewed the responsible of each Autonomous Bodies; this method of research allows us to map the single activities of the process analyzed.

The choice of a case study is one of the most appropriate method of empirical inquiry because qualitative studies are necessary where organizational processes are involved.

Our analysis concerns an example of educational organizations due to the fact that the public sector is characterized by a radical change.

Findings - In the University W. P. both Faculties and Departments need staff in outsourcing to satisfy teaching and research requirements. This present situation cause a big problem because these subjects are on external contracts. This type of contracts generates relations with a lot of External Agencies for example fiscal and social offices that receive payments from each Autonomous Body, but actually the interlocutor is only one: the University.

Based on evidence, and in particular analyzing this most relevant issue using a processes approach, we pointed out the following inefficiencies:

- duplication of activities concerning the drawing-up and management of a contract;
- duplication of activities concerning relations with External Agencies;
- delay about presentation formal documents and payments.

The mapping and the improvement of the process "Human resource recruitment: not employee" pointed out that is important to broaden this analysis to the mega processes. In fact this could help a better integration between processes and sub-processes in order to reach the strategic targets of the University.

Research limitations/implications - This study take into consideration a single case study, but for future research it's necessary to compare this situation with another.

Originality/value - This study contributes to identify the relevance of processes approach to reduce the bureaucracy both in terms of costs and timing. It also identifies the gap between Autonomous Bodies and processes (relevant topic in the main literature).

The relevance of this research is justified by the fact that the processes approach and the re-engineering are important, especially referring to the Italian public sector. In fact the state-run companies are involved in a radical change which is caused by the following factors:

- the decentralisation of administrative offices
- the increasing of the consumer demand / requirements
- the introduction of competitive mechanisms
- the implementation of new technologies

Keywords: process management, processes organization, university, educational organization.

INTRODUCTION

In the public sector it has become essential to overcome the traditional fragmentation of responsibilities and consequently to revise the administrative processes.

The evolution towards a " process organization " allows to define organizational structures responsible of the whole process, identifying the "process owner".

The adoption of the process approach allows:

- the recomposition of work and professionalism required, overcoming the fragmentation of duties and responsibilities;
- the streamlining of the organization, also through the creation of interfunctional teams with responsibilities on common goals;
- The adoption of quality management and continuous improvement based on the observation of results and bottom-up participation of all actors;
- The establishment of formal management processes with the adoption of reporting systems integrated with the management control system.

The importance of the adoption of process approach is due to the change that is going through the public sector.

The reasons for the change is due to:

- the pressure to the decentralization of administrative functions
- greater needs of end-users (citizens, firms, community), which require services more efficient, without wasting time;
- greater responsabilisation of public manager on expenditure levels, for the effect of policies on financial recovery.

THE METHOD

The research has been conducted through an empirical analysis of exploratory case study and the results are based on interviews.

The choice of a case study is one of the most appropriate method of empirical inquiry because qualitative studies are necessary where organizational processes are involved.

Case study research excels at bringing us to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research.

Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships.

Researcher Robert K. Yin defines the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used (Yin, 1984, p. 23).

Case studies are often criticized for lack of statistical reliability and validity.

Also, it is argued that the risk in using only a few case studies is the loss of external validity.

Still, the insight and relatively deep understanding facilitate analytical generalization so that findings can be generalized to theory (Yin, 1984).

To overcome this dilemma it is increasingly important to select a representative case and validate the result continuously and not simply at the end of the study.

This case study was analyzed through interviews conducted with the Administrative Secretariats of the Faculties and Departments. The main purpose of the interview was to gather information and issues concerning the process "Acquisition of external human resources: personnel not employee" to be devoted

primarily to teaching courses (with particular attention to the category of contract teachers) and research projects.

The interviews were semi-structured to be kept within the main question area but still open the possibility to get the interviewees own ideas and feelings.

The interviews also included some questions to verify the good quality of answers.

Case studies are complex because they generally involve multiple sources of data, and produce large amounts of data for analysis.

Researchers from many disciplines use the case study method to build upon theory, to produce new theory, to dispute or challenge theory, to explain a situation, to provide a basis to apply solutions to situations, to explore, or to describe an object or phenomenon.

In this study we used this tool to explore and describe a phenomenon and its consequences.

The advantages of the case study method are its applicability to real-life, contemporary, human situations and its public accessibility through written reports. Case study results relate directly to the common readers everyday experience and facilitate an understanding of complex real-life situations like this one.

ANALYSIS OF THE PROCESS "PROCUREMENT HUMAN RESOURCES: PERSONNEL NOT OFFICIAL"

Issues

The problem considered at the University W. P. is related to contracts with the non-employee staff of the University which work both in the Departments for the purposes of research, both in the faculties, for teaching (courses, exercises ...).

The problem arises because contracts stipulated by the Autonomous Bodies, Departments and Faculties, they create relationships with other external bodies such as INPS and INAIL (Italian welfare bodies) which receive payments from nineteen Autonomous Bodies, when in reality the interlocutor is one: the University.

Also when it is necessary to prepare certain documents required by tax law is critical. In fact, if the same person has worked for several Autonomous Bodies, all data must be collected and summarized in a single document to avoid duplication. The classic example is related to the redaction of CUD (an Italian document which certified the payed income), where it was found difficulties to coordinate the various offices for the exchange of documentation.

Moreover, at level of data processing system, there are problems related to the database. Every Autonomous Body has its own database, so if a person works with several Autonomous Body, it appears in several database creating problems to the Central Administration.

Consequently, after to have considered the issues highlighted above, the activities executed in the Central Administration, like for example the drawing up of the budget, the balance sheet ect were mapped in order to understand the general working of the University. In a second moment, we moved to observe, through interviews conducted individually with responsible of Administrative Secretaries of Autonomous Bodies, the process currently adopted for the acquisition of human resources as staff not employees.

The final goal was to redesign the process "Acquisition of human resources like personnel not subordinate" both with regard to the Faculties and to the Departments in order to solve the problems recognized.

The critical identified are:

- 1) to define a procedure for Autonomous Bodies described in a clear and comprehensive way;
- 2) to define the duties of the Autonomous Bodies and the duties of Central Administration;
- 3) to determine when it is necessary to centralize or to decentralize;
- 4) to identify how to maintain the autonomy of the Autonomous Bodies;
- 5) to define the paper flow of documents to the Central administration.

The intervention

At this point, speaking of public sector, it is helpful to clarify the link between the concept of process and the concept of administrative procedure. An administrative procedure is defined as the set of documents, identified by laws, connected and tending to a single act with external relevance. The process is composed by activities that are linked together in time and space and they are conducted by the resources of a firm; starting with defined inputs, the activities produce an output used by "clients"³⁰. Administrative procedures and processes have in common the transverseness to administrative structures: a procedure can pass through several administrations and through several offices in the same administration. In the same way a process is transverse to the organizational structures. The main difference is in the level of generality to which they relate. A "process" can also be the set of different procedures.

In the public sector is difficult to identify a process respect the recognition of the procedures.

³⁰ Bracchi-Motta, *Processi aziendali e sistemi informativi*, Franco Angeli Ed, 1997

As regard the main intervention techniques on the processes they are generally identified in the Business Process Reengineering - BPR and Business Process Improvement - BPI.

The business process reengineering (BPR) consists into put the process change at the centre of analysis and design of new firm systems. The essential characteristics of BPR are: the radical redesign, the analysis of the performance discontinuity, the use of information technology, integrated with the organizational interventions. The main feature of reengineering consist to look to the processes as if they were redesign ex novo, imagining alternatives also completely revisited.

For example the execution in parallel of the activities can allow the achievement of significant improvements in terms of total time of execution of the process, because it eliminates waiting times. It also tends to reconstruct fragmented activities, introducing new tasks, which often is called case manager because in the new job are collected all the activities necessities to give a comprehensive reply, timely and customized to the single case.

Traditionally BPR focuses on macro-processes and not on single operating process, even if it is possible to apply techniques of reengineering processes at this level, for example, in the public sector, can be used for the simplification, streamlining , automation and decentralization of administrative proceedings.

The other method of managing the processes, very effective in improving efficiency, is the Business Process Improvement (BPI). The application of this method simplifies the process eliminating waste and unnecessary bureaucratic procedures.

The BPI acts simultaneously on all levels of the organization, involving both management and specialists in activities of medium and long term. The goal is to make the whole process effective and appropriate in manner to avoid the error to improve the sub-processes that compose it without that the process in its entirety will take the necessary benefits.

The process examined "Acquisition of human resources: personnel not subordinate" is an operational process and it is part of a macro-process that could call "Acquisition of human resources." For its review, it was decided to use the technique of BPI and therefore those of improvement, because the technique of BPR could have to cover the re-design of the whole macro-process.

The goal of the intervention: the discontinuity and the duplication of the activities

The technique of BPI, which is used in this case, should not be seen as an isolated activity carried out only once, but rather included in the widespread processes of improvement and, if necessary, replaced with the change introduced in a radical way, with the BPR.

The problems identified in the process analysis can be summarized as follows:

- the duplication of activities of the documents request to the interested subject (for example the personal data of the subject are request not at a time)
- the duplication of loading data on the database of the used software;
- the duplication in the presentation of the models to bodies such as INPS;
- the lack of timeliness in the signing of contracts;
- delays into presentation of documents;
- delays in payments;
- incomplete information provided to comply with all legislative requirements;

In rethinking this operating process, we tried to remedy these problems trying to centralize some activities relating to the signing of the contract and the payment of compensation.

THE INTERVENTION

The phases of intervention

The method of BPI for the review of sub-process object of research is summarized in a few stages which are detailed below.

Step 1: Definition of the intervention

In this first phase of intervention it should be:

- to define as clearly as possible what are the main reasons that lead to an intervention of BPI;
- to identify the context of action and the organizational units involved in the process under consideration;
- to define the organizational constraints that it must comply, or that it is possible to modify in planning the solution.

Consequently it was necessary to interview the seven Administrative Secretaries of the Autonomous Bodies (Faculties and Departments).

It emerges, for homogeneity motivation, the need, for all the Secretaries, of a periodical meeting where it is possible to exchange ideas and information.

Step 2: Diagnosis of weaknesses and priorities

The phase of diagnosis aims to identify critical points of this operating process.

The goals of diagnosis are:

- The thorough examination of the problem, the analysis of its causes and the interpretation of consequences and implications global for the organization;
- the detailed analysis of the constraints, the obstacles and the opportunities for overcoming the problem in a realistic way in the context and with the forces of the organization;

- the presentation of the results and the information geared to the identification and the selection of solutions.
- At this point it's opportune to highlight because it is important to make a diagnosis:
- to analyze the existing process it is necessary because in most of the public administration there is not a precise awareness of what are the processes, and it tends to confuse too easily with the procedures;
- to analyze the existing processes it is useful to understand better the importance of change, because it highlights the gap, the difference between the current situation and the desired situation;
- the understanding of the existing process allows to argue future requests of resources that will be necessary to implement the new design;
- finally, it must remember that only if there are clear the existing problems it is possible to avoid to repeat these in the re-thought processes.

In the specific case under examination, the diagnostic phase was completed with the reconstruction of the real process (see paragraph 4.1).

The "process map" defines the process analysed, the activities, the relations between the various intervention activities, and it describes the process as is, and the main characteristics:

- activities;
- input;
- output;
- players
- rules and constraints.

Step 3: Process Improvement

This phase has the aim of improving the process, through the revision of certain activities in order to:

- delete operations without value (so they do not meet the needs of any actor involved in the process): for example, to eliminate or to limit the transfer between units of intermediate output, the repetition, the remakes, etc;
- recompose fragmented activities or to streamline flows too complex, coherently with the analysis of legal constraints;
- unlock the "bottlenecks" and prevent the depletion of critical resources, through synchronization of operations of the process, the balancing of resources devoted, etc..;
- substitute activities "grouped" with activities "in line": for example, to avoid that it is necessary to accumulate a certain number of practices before to examine these, it is required to intervene in situations of waiting ;
- unify and share the information required for the execution of the process and for the control in order to avoid double data loading inconsistencies, reconciliation of data, etc..

Considering the above it is possible to reach a redesign of the process examined, describing the phases and summarizing the process as outlined in the paragraph 5.

Mapping of the process "Acquisition of human resources: personnel not subordinate "

After the interviews to the staff of the University and the elaboration of the information acquired it was possible to map the process and to highlight the logical sequence of steps and interconnection between the different offices.

Despite the different objects of activity (research and teaching) which are executed at the University and some substantial differences in the types of contracts it is described only the process "Acquisition of human resources: staff not subordinate" related to the Faculty, because it is very similar to the same process in the Department.

- The process begins, on the basis of "educational plan", with the necessity to find external staff for teaching activities and with the verification by the Administrative Office of the availability of funds in the budget to cover the engagement.
- The request is formally made to the Faculty Council that, after examination, it can reject or accept it.
- In the latter case there will be a formal measure of the Board of the Faculty which will express an opinion on the financial side, while the Faculty Council will decide on teaching side.
- Following the decision of the Faculty Council, it is necessary to "reserve" in the balance sheet the sum for the compensation.
- At this point it is necessary to publish the notice of selection, arranged by the Faculty Council and formally drawn up by the Secretary of the Presidency.
- The Faculty Council appoints the Examining Committee, which reviews the applications and prepares the ranking resulting from the selection.
- Publication of the pass-list by the Secretariat of the Presidency.
- Approval of the pass-list by the Faculty Council;
- Against that list or against the subsequent decree of approval by the Faculty Council any recourses may be moved.
- After this step, it may be that no candidate is deemed suitable in this case it is possible to restore the procedure, issuing a new invitation.
- If it is found a the suitable person, the Dean of Faculty will issue the decree of appointment.
- Following this document, the contract, prepared by the Administrative Office, will signed (by the person chosen and the Dean of Faculty).
- From the 1 January 2007 it should also communicate within 24 hours of the day before the establishment of the employment relationship and the beginning of the employment also to the Employment Center territorially competent.

The above is valid to the generality of the contracts concluded in the Faculty, but for the case of "professors with contract" there are some peculiarities which are described below.

- In this case there is an involvement not only of the Administrative Office of the Autonomous Bodies, but also to other central offices. In particular, the Office of Teacher Personnel receives and examines an excerpt of the Faculty Council resolution and the decision approving the pass-list.
- After these documents, the Office of Teacher Personnel issues a Rector Decree authorizing the appointment (the decree, signed by the Rector, is issued after attestation of regularity by the Dean of Faculty).
- This Decree is sent to the Faculty (Secretary's Office) which, after making the final checks, will stipulate the contract. On signing the contract there are also required tax information that will serve for the next payment.
- Following this act, the person will be registered to the Public Registry.

- The last formal act to be done before the start of the activity is called "taking of Service", and the sign is done in the offices of the Secretariat of the Faculty.

The procedure, however, does not end here, because the bureaucratic aspect of contract is only one part, and the other fundamental aspects are referred to the accounting, which regards to all types of contract.

- All the documents are sent to the Administrative Office of the Autonomous Body which will transform the reservation be made in the balance sheet.
- At the end of the service, the Dean of the Faculty, on the basis of the attendance register for teachers under contract or on the basis of a report of the scientific responsible, will attest the effective work of the resource and the Administrative Office of the Autonomous Body, after checking the accuracy of tax information previously collected, will pay the net amount due, with the timeframes specified in the notice and the contract.
- Within the day 16 of the month following the payment, the Autonomous Body will pay the contributions (INPS, IRPEF, IRAP).
- The data of the contracts in question are addressed to the Central Salary Office to drawn up some fiscal documents (CUD and the model 770).

REVISION OF THE PROCESS "ACQUISITION OF HUMAN RESOURCES: PERSONNEL NOT SUBORDINATE"

The phases of the new process "Acquisition of human resources: personnel not subordinate at the Faculty"

- INPUT: The need to find external staff for teaching activities;
- STEP 1: the teacher requires to the Secretary to conduct an administrative check on the availability of funds in the budget for the coverage of any assignment;
- STEP 2: (1) whether there is not coverage, the process ends; (2) if there is coverage, the request is made to the Faculty Council;
- STEP 3: Review by the Faculty Council of the request, which may (1) be rejected and consequently filed or (2) the application begins;
- STEP 4: In case (2) the Board of the Faculty shall deliver an opinion on the financial side;
- STEP 5: Following the advice of the Faculty, the Faculty Council shall act on teaching aspect;
- STEP 6: The Administrative Office conducts the reservation to the balance sheet to cover the engagement.
- STEP 7: publication of the notice by the Department (Secretary's Office);
- STEP 8: appointment of the commission by the Faculty Council;
- STEP 9: collection of applications presented to the Secretariat of the Presidency;
- STEP 10: Review of applications submitted by the Commission;
- STEP 11: The Committee shall establish the pass-list resulting from selection;
- STEP 12: The Secretary's Office publishes the pass-list;
- STEP 13: approval of the pass-list by the Faculty Council;

Some possible claims against the decree of approval of the pass-list;

where there is no suitable candidate (1) it is possible to restart the procedure (by Step 7) or (2) to surrender;

-
- STEP 14: where is located the suitable candidate, the Dean of School will sign the decree of appointment;
 - STEP 15: Secretariat of the Presidency will send within 15 days (from date of issuance of the decree) the decree of appointment both to the person concerned and the Teaching Personnel Office;
 - STEP 16: The contract is drawn up in the Teaching Personnel Office for all types of contract within 30 days from the date of receipt of the decree of appointment;
 - STEP 17: within 5 days of the drafting of the contract, the Teaching Personnel Office sends letter the person concerned inviting him at the Rector's Office (academic staff) to sign the contract and for to take the service which must to be made within 15 days of receipt the letter;
 - From the 1 January 2007 it should also communicate within 24 hours of the day before the establishment of the employment relationship and the beginning of the employment also to the Employment Center territorially competent.
 - STEP 18: sending a copy of the contract, by the Teaching Personnel Office within 2 working days by signing the contract, to the Salaries and the Balance sheet Office;
 - STEP 19: The Balance sheet Office within 5 working days from receipt of the contract communicates to the Public Registry the compensation of the subject;
 - STEP 20: The Balance sheet Office within 30 days from the reception of the contract would make the compensation for the expenditures between the Central Administration and Autonomous Bodies;
 - STEP 21: Communication to the INPS within 30 days from the reception of the signed contract and INAIL communication by the Salaries Office within the day before the start of the activity ,
 - STEP 22 (b): a teachers with contract at the end of the academic year (October 30) sends the register of admissions to the Dean of Faculty;
 - STEP 23 (a): the Dean of Faculty attest is the actual work of the resource and communicate it to the Salaries Office;
 - STEP 23 (b): the Dean of the Faculty announced the implementation of the provision to the Salaries Office by 15 November;
 - STEP 24 (a) The Salaries Office shall pay in accordance with the timetable in the contract;
 - STEP 24 (b) The Salaries Office shall pay by December 15;
 - STEP 25 (ab): the Office Salaries drawn up some fiscal documents (CUD and the model 770)

CONCLUSIONS

On completion of this work, particularly after the intervention aimed at improving the sub-process "Acquisition of human resources: personnel not subordinate" it is clear that it would be appropriate to extend this analysis to the macro-processes of the organisation, also considering the strategic aims of the University, so that all processes, sub-processes and processes operate in an integrated manner.

So that the structure operates in a uniform manner it is necessary to identify the primary processes of the organization, those related to institutional mission of the University, which create "value" outside recognized by customers.

It is on these processes first of all that it is necessary to reconstruct and model the critical areas and possible improvements

The final goal of a more precise analysis is to ensure the quality of service provided by the University. Indeed, in our opinion it is necessary, before starting a BPR and BPI project, to analyze the needs of users of the service of the University. In particular, it is necessary to identify the aspects of quality perceived by the user and relevant to him. The identification of quality factors leads to different results depending on the services analyzed. For administrative services, the qualitative factors as timeliness (speed, punctuality, etc) and reliability (no errors, corrections, etc).. For delivery services, the quality factors are determined by the nature of the benefit. For all services, in addition, there are general factors of quality, such as those pertaining to the relationship with staff.

Not only the qualitative aspect is the most important, but we must also keep under review the efficiency as a ratio between the results achieved (outputs) and resources used (inputs).

But there are also other aspects to monitor and these are the policy and transparency.

In fact, the public administration, unlike most private services, has to combine the satisfaction of user needs with the achievement of policy objectives, which are not always explicitly requested. The improvement of the indicators of efficiency, effectiveness or quality should not be at damage of the adequacy of the service in relation to the overall objectives that come from the institutional mission, which are processes and activities for prevention and control, and which usually not correspond with a specific "user", but with the entire community.

It was underlined the importance of a change within the University, but at the same time, it was revealed that this change to be implemented must take into account many variables, and the human element belonging to the facility.

Rethinking the processes would seem to be of fundamental importance in order to work in a totally new company and to avoid duplication of activities by the various working groups.

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THE IMPACT OF INTERNET AND GLOBALIZATION PROCESS ON VALUE CREATION: AN INTEGRATED PERSPECTIVE

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Driven by factors like globalization, internet introduction, increased competition and declining customer loyalty the firms are facing a structural transformation. This paper represents a analysis of that aspects of globalization and internet that affects the process of value creation. This is done through the examination of two different model relative to considered concepts and trough a proposition of a dynamic integration of the same ones within the context of Mediterranean competition. The aim of this paper is to highlight the ties between internet, globalization and value creation, through the analysis of how this relations concretize itself in the dissimilar business area. A profile of South Mediterranean Country innovative competencies is developed through the "Italmed" case study. The paper argues that matching globalization and internet in a unique model, with the aim to explain the main theories or arguments of this dimensions and to map them with inter-relational perspective, characterizes the level of competitiveness and represent the basic premises of value creation.

Key words: Internet - Globalization – Value creation – Dynamic - Mediterranean competition

INTRODUCTION

Factors that have contributed to globalization include increasingly sophisticated communications and transportation technologies and services, mass migration and the movement of peoples, a level of economic activity that has outgrown national markets through industrial combinations and commercial groupings that cross national frontiers, and international agreements that reduce the cost of doing business in foreign countries. Globalization offers huge potential profits to companies and nations but has been complicated by widely differing expectations, standards of living, cultures and values, and legal systems as well as unexpected global cause-and-effect linkages. Although many large companies have globalized for decades, the Web, more than any other phenomenon, has enabled the smallest company to have a global presence. While society in general may not yet be living in a world without borders, from a business perspective it's already here (Sengupta et al., 2005). Thanks in large part to the explosive and continuing growth of Internet usage worldwide, having a global strategy is no longer an option for most companies. It is a necessity. The recent trend towards globalization in mass communications has had a drastic effect on the world. With the use of the internet technology there can be seen a great positive force on globalization as it tends to increase the communication processes between people living in different parts of the world and also helps to promote the political, social, economic, and cultural aspects of a country (Streeten, 2001; Sirinivas, 1995). The impact of internet on globalization has both positive and negative aspects (Hay & Marsh, 2000; Held et al. 1999; Fulcher, 2000; Foster-Carter, 1996; Killminster, 1998; Busch, 2000; Bauman, 1998; Robertson, 1992; Holton, 1998). The positive impact of the internet technology on globalization includes the modernization and improvement in the business sector on a world wide basis. Internet have strengthen the information accessibility, in fact, the action of internationalization always derives from an information – internal and external – its result always depends on the size of the information achieved by a firm (Guadagni & De Tommaso, 2007). As there is a positive impact of internet on globalization there can be seen a negative impact of internet on globalization as well. In fact, in less developed countries as in developing countries the internet technology generally does not have a neutral application. So, it causes social costs, as well as costs in the form of urbanization, employment displacement, and the "digital divide".

Globalization has brought on the international scene new actors which differ from the traditional ones. Among these new actors the transnational corporations represent the largest presence. They are private

actors which pursue profitable aims and they have great influence over economic trends (Ansoff, 1980). An aspect which is even more important than their economic influence is their capability of displacement.

The aim of this paper is to highlight the tie between internet, globalization and value creation, through the analysis of how this relations concretize itself in the dissimilar business area. In this perspective, we analyse the literature on the internet role, on the definition of globalization (Busch, 2000; Held et al. 1999; Waters, 1995) and on the drivers of value creation (Guatri, 1991; Porter, 1988) to match those in a unique model. The mean of this essay is to explain the main theories or arguments of this dimensions and to map them with inter-relational perspective. Starting from the considerations introduced, at the aims to underline the changes of factors affecting value creation, occurring after internet introduction, this paper intends to offer a qualitative analysis of business areas testing the factors by which they are affected and leading back them to a prevalent theory.

The research is performed in different steps. It starts from a synthetic review of the literature concerning globalization, internet and value creation. Then, the analysis of "Globalization framework" and Enterprise 4.0 models. Third, the attempt to develop this model in a dynamic perspective. Finally, the proposition of the "Dynamic Internet –Globalization framework" and the analysis of the Campania region's projects in the transport and logistic sector. The research objectives were achieved by analysing the globalization trends, the scope and impact of economic forces and actors, and the capacity of societies to manage their consequences, as well as through the analysis of each area of the "Globalization framework model", the strengths and weakness and the opportunity to develop it in an integrated perspective in order to adapt the model to the new trends of globalization and facilitate the value creation.

The value's creation require time and care from the parts that are involved from Internet, as we clarify into paper, the IT permits to reduce time and costs into process of value creation, it stimulates the co-creation.

In this view, research try to identify, define and refer to the appropriate testing tools the determinants of corporate value, the distinctive contribution of Internet reference to a particular class of companies, or those operating in South Mediterranean area.

The goal of analysis is to propose instruments for the consolidation and expansion of the network of institutional relationships between Campania and Mediterranean countries in order to create conducive conditions to the development of partnership networks among public and private partner of socio-economic, cultural and scientific development of territories involved. The models presented intends to facilitate the management of Campania's institutional cooperation and economic internationalization processes, in a scenario that is being foreshadowed as the most important world market: the Mediterranean.

Into article have been analyzed, amplified and applied two models: the model of Globalization framework model of Manardo (2000) and model of Enterprise 4.0 (Giacomazzi F & Camisani C., 2008). The first maintain the importance of Internet's role into process of acceleration of the Globalization; the second permits to verify the practical application of the instruments of internet into relationship process – internal and external – of the enterprise, in particularly into a complex environmental of globalization.

GLOBALIZATION OUTLINE AND INTERNET

The multi-facets character of globalization makes it difficult to conceive what globalization really is, in fact, globalization means many different things to many different people which renders an attempt to map out the debate on issues around its rather new. So, one of the first issues is attempt to define what one is talking about.

As Dutta (2002) has mentioned "In the absence of economic regionalization, the paradigm of globalization is likely to be operationally dysfunctional...Regionalization can help regional economic unions/ communities enjoy competitive shares of world output and trade and thus become competitive actors in the inter-regional competitive world market, contributing to the success of globalism (Hoecklin, 1996).

Busch (2000) argues that globalization refers to a world in which, after allowing for exchange rate default risk, there is a single international rate of interest. According to Held, McGrew, Goldblatt and Perraton, (1999) globalization implies, first and foremost, a *stretching* of social, political and economic activities across frontier such that events, decisions and activities in one region of the world can come to have significance for individuals and communities in distant regions of the globe.

Griswold (2000) suggests globalization is the growing liberalization of international trade and investment which result in increases in the integration of national economies.

This definition has expanded by Henderson (1999) that comprise five related parts:

- The increasing tendency for firms to think, plan, operate, and invest for the future with reference to markets and opportunities across the world as a whole.
- The growing ease and cheapness of international communications, with the Internet as the leading aspect.
- The trend towards closer international economic integration, resulting in the diminished importance of political boundaries. This trend is fuelled partly the first two trends, but even more powerfully by official policies aimed at trade and investment liberalization.
- The apparently growing significance of issues and problems extending beyond national boundaries and the resulting impetus to deal with them through some form of internationally concerted action.
- The tendency towards uniformity (or harmonization) by which norms, standards, rules and practices are defined and enforced with respect to regions or the world as a whole rather than within the bounds of national states.

The emergence and growth of a single global market render nation-state borders meaningless (Held et al. 1999). In this view the global flow of capital and labour and the integration of markets will accelerate the processes of globalization.

As market shares increase in international scope and corporations become global, the need for information increases. A reliable and competitive telecommunications structure will, in turn, encourage investment by multinational corporations (Hudson, 2000; Sauvant, 1983; Ratliff, 2004), which further encourages global trade and network formation (World Bank, 1998; Kiplagat and Werner, 1994).

The advent and rapid development of information technology, and particularly Internet, have transformed the business mode of information transmission, generating a significant change in the world economy. The key factors of digital society development, in which individuals, businesses, institutions and, generally, the whole country system are moving into permanent/interactive network connections can be identified in (Valdani, 2000):

- The spread of personal computers;
- The process of digitization of information, images, music and communications;
- The development of high-speed communications infrastructure of data transmission.

Each field of business management was affected by the use of the Internet: the management of transactions, online trading, all activities that have contributed to the construction of a square International trade efficient. Through the use of all technologies in common evolution, a growing number of information was exchanged, as a result many barriers to entry to new markets have fallen, costs have been reduced, customer service has expanded to new opportunities and generally improved (Marangione, 2005).

So, ICT could support knowledge management (Rullani, 1994) policies through the socialization, exteriorization, combination and interiorization of knowledge (Nonaka, 1991). Deep in a scenario such as that proposed, a company that builds its environment, through strategies Resources based (Barney, 1991), no longer recognizes national and sector boundaries, but goes beyond them and past them becoming cross border (Singer, 2002). In that sense, the term cross-border vein to put out a set of relationship and business-

like border and inter-sectoral. Therefore, the application of tools and traditional methods are insufficient when applied to the new realities are proving inadequate and also the application of traditional methods that aim to quantify the value, without there being a re-reading that takes into account the unique characteristics emerged, i.e. the characteristic features of digital economy (Metallo & Pencarelli, 1997). Despite the widely held belief that information technology (IT) is fundamental to a firm's survival and growth, scholars are still struggling to specify the underlying mechanisms linking IT to financial performance.

According to Yip (2000) globalization and rise of internet are the two most powerful forces, which interact and its create joint effects.

Internet has permitted a new method of relationship, it move different relationship capabilities, The net can constitute an interesting "space" for enterprise that operate on the global market (Giacomazzi & Camisani, 2008). The relationships between enterprise and surf, the new interaction's methods, the profitability of net are strategic points. The diffusion of Internet involved the human activity at every levels, it is become an instrument of relationship process. the web is indispensable to manage and meet the complex of competition and of demand. The evolution of technology has engrave on the method and on canal of management relationship flow, this change the has involved the enterprise, in fact they use the net for distribution, communication in relation to get to customers, in order to external and internal communication, in relation to management the human resources et cetera. The business strategies find concrete application with instruments of net, it's important the need of firm to create and manage (internal and external) complicate relationship. This revolution involved whole company functions, it's amplified by Web 2.0 (net read and write), terminologies mint in 2004 from Tom O'Reilly. Of point of strategic view the web 2.0 involve a new vision, i. e. a product open source that modify the relation models, it increase the participation, the collaboration and the sharing. From point of view operational/informational it is a platform that permits to user to utilise applications of browser, without the download of software on computer.

DYNAMIC INTERNET – GLOBALIZATION FRAMEWORK

Starting from those consideration we analyze the "*Globalization frame work*", improved by Innovative Leaders in Globalization program (1999)³¹, which provides a structure for the concept of globalization. In this frameworks six capabilities have been individualized. The six capabilities are: governance and responsibility; strategy and finance; marketing; sales and service; operations and technology; research and development; and human resources management (Manardo, 2000). For augmenting the analysis of IT's effects on firm performance we adopte the framework of the resource-based view (RBV) of the firm which links the performance of organizations to resources and skills that are firm-specific, rare, and difficult to imitate or substitute (Barney 1986, 1991). The resource-based view focuses on costly-to-copy attributes of a firm which are seen as the fundamental drivers of performance (Conner 1991; Rumelt 1984, 1987; Schulze 1992). The purpose of this paper is to employ the resource-based view to develop the theoretical links and examine the association between IT capability, globalization processes and value creation. Although this, the model of Manardo does not consider the role of internet in the globalization framework steer towards the value creation processes.

So in our view, it is necessary to develop this model in dynamic perspective which takes in consideration the internet role as an accelerator of globalization and as a vehicle of value creation. Therefore, we explain and qualify the relationship between the business area and the Information and Communication Technologies (ICT) specific of each one that helps to the realization of globalization processes and international expansion. Then we consider the effects of this ties on the value creation processes.

Manardo (2000) argues that "*Globalization is forcing companies to recognize the need to change from creating value for one stakeholder group to an expanded strategy of creating value across the enterprise for four key stakeholder*

³¹ *Innovative Leaders in Globalization program as presented at the World Economic Forum's Annual Meeting in Davos, Switzerland in January 2000.*

entities: providers of capital in the financial markets; customers in the products and services markets; employees in the labor market; and the most complementary business partners. It is only by effectively competing in all four areas that companies can deliver sustainable, superior returns for all stakeholders. This is managing for enterprise value – which is the central concept of the project's globalization framework”.

It is returned to the past but the effects are amplified. In order to characterize the role of Internet in the areas of value creation it must be left from the following task: the New Web (Web 2,0) has widened the possibility and the functionalities of the Web, before limited to the single consultation, in order to become a real “platform”. The read/write transformation in, that is the possibility “to write” and, therefore, to modify the new contents has open possibility (Giacomazzi & Camisani, 2008). If the value creation presupposes the active participation of the enterprise's stakeholders, Internet has allowed on one side to amplify the interaction of the value creators and, on the other side, to be involved new actors (which human resources, city, institutions, and others) strangely enough this instrument has allowed the consumer to recover own role in the value creation (Aiello & Cacia, 2009).

So, in light of the Globalization framework model of Manardo (2000) we propose a new reading of itself in order to draw attention to a map of the “main actions” of Internet in the value creation.

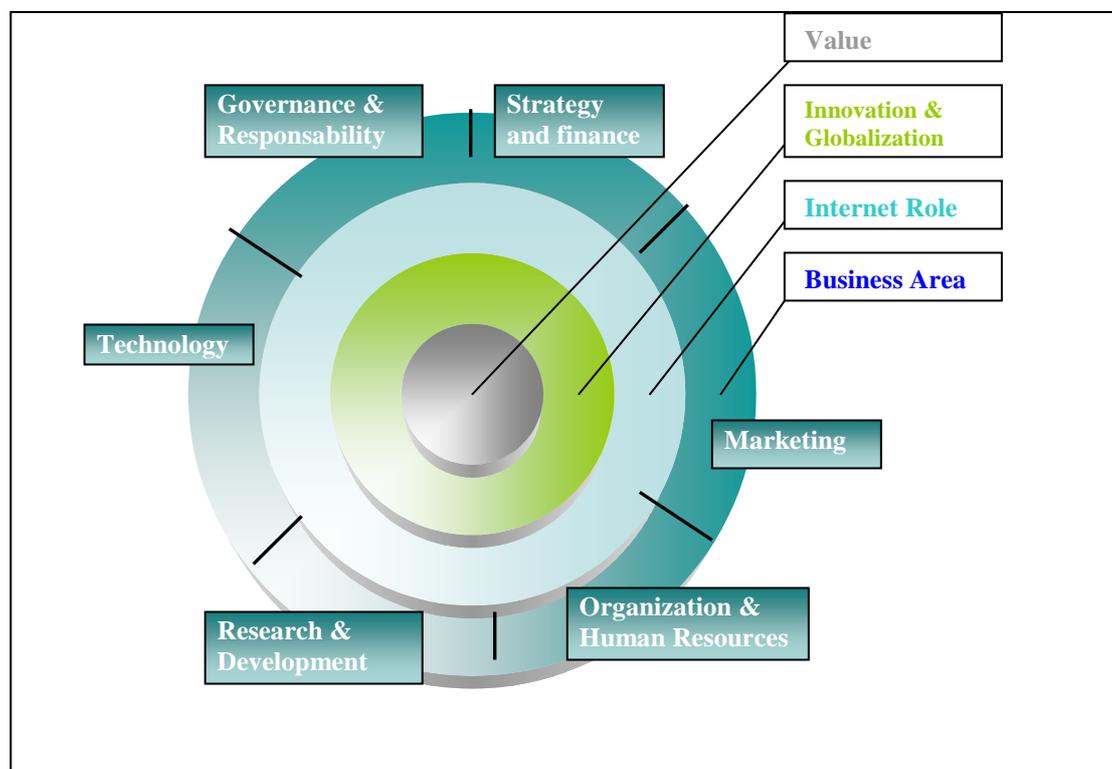


Fig. 1 – Dynamic Internet –Globalization framework. Source: our elaboration

For that reason, it is necessary to identify each areas of the model, that have a discrete and significant role in effecting the ultimate enterprise value, before analyzing enterprise as a whole, and highlights the core competence of the corporation (Prahalad & Hamel, 1990).

The first one is the marketing area; it has the task to plan, to activate and to realize an active action on the market, the marketing is that process face to create, to distribute, to promote and to pricing assets, services and ideas in order to facilitate satisfactory relations of exchange with the stakeholders (as well as customers) in a dynamic atmosphere (Pride & Ferrell, 2005; Kitchen, 2003). To frame the role of Internet in the area marketing is natural the two parts is by now unavoidable, is spoken in fact about and-marketing (Collin, 2000), of e-commerce (Earle & Keen, 2000) and of virtual space, nevertheless there are still enterprises that do not use such instrument the potentialities make or it in reductive way without lend attention to all, in particular in the value creation.

The second one has been individualized in technology. The technology area is the one from which Internet derives and in which that had the most tangible impact. Moreover Internet carries out a fundamental role in the development, spread and sharing of the technological innovation, as we will verify in the study the directions involved in this area. According to Manardo “*Internet-related technologies are enabling unprecedented levels of coordination, both within and across organizational boundaries and around the globe, all the while delivering significant improvements in operational efficiency and flexibility*”. Therefore, internet drive business need to re-examine many other aspects of their strategy.

The third capability have been individualized in the strategy and finance area. Financial resources allow business to carry out investment in activities that create the starting point for future income flow obtaining and for firm economic value development (D’Amato & Cacia, 2008). Therefore, financial system availability to support business requirement cause the opportunity to review firms structural characteristics across innovative process linked on technologies, productive processes and products (Parvani, 2002). To built a relation system capable of maintain and develop the firms growth and change processes is necessary that the information/ valuation process, come from that relation, would be inspired on efficiency and transparency. This is particularly significant for the relation between business system and financial system, that are based on uncertainty and risk conditions, on the basis of which decisions have to be take on; those impose attention on business reputation in order to ensure transparent perception by the stakeholders. In fact, the reputation as uncertainty transformer, could influence business performance and, for that reason, contribute to their success. Still, stakeholders perception doesn’t shape lonely on business information, but also on large context variables. So, firm's difficulty consist on being perceived positively by the public in the course of its natural dynamics and the changing conditions of context. The introduction of *information technology* have generate a considerable transformation on relations between firms and financial system. The web has allowed the construction of a fluid and transparent relationship between company and stakeholders, implemented through the transfer of the undertaking to inform the community as a whole and to bring all stakeholders alike. *The Web* use on financial and strategic processes allowed business to obtain a vast range of information look at context of reference but, above all endorsed to accelerate information sharing and to broaden the public it was designated too (Bollen & Hassink & Bozic, 2006). The introduction of *conference calls, internet, e-mail* either of *social network*, have open to the business the possibility to provide fast and specific information and, at the same time, to achieve a much better informed and sophisticated public. The consequent risk reduction perceived by investor and stakeholders, come from quantity and quality of information increase, generate less costly capital inflow and so, better performance (Bini, 2000). So, the degree of innovation and development of strategic and financial online plans become source of competitive advantage (Porter, 1980 - 1985) because potential capable of conditioning business development and survival. Those elements clarify the growing integration of new communication and information technologies on the value creation processes.

In line of this issue, internet-related technologies are well-suited to facilitating global research and development, that represent the fourth area of the model. Trought internet the companies could be more selective in their core R&D focus –i.e. increases the potential rate of product development cycles - and provide easier access to the complementary competencies of an extended research network, even diverse geographically located. At the same time, internet-related technologies could help advanced global companies to manage the *Human resources*, that represent a mast of the enterprise-value framework. The globally connected business environment facilitate the recruitment of quality employees from around the world and enable increasingly creative work arrangements that balance work demands and family responsibilities. This constitute a positive elements also thanks to the possibility of a better organizational structure of business. Therefore, Internet-related technologies can simultaneously enhance employee loyalty, give employees the confidence to succeed in other jobs (Manardo, 2000) and make enterprise capable to obtain competitive advantage and create value. More, referring to human resources, we need to make a reflection on the fact that globalization doesn’t suppress territorial differences; on the contrary it exalts them. It makes places more complicated, not homogeneous. For this reason an action of internationalization needs a cross-cultural management. The cross-cultural manager must have:

- both personal and professional suitable skills and a cultural literacy;

- a mindset that let him to better manage the cross-cultural situation.

The cross-cultural sensitiveness develop by passing from the stage of ethnocentrism to the one of ethno-relativism. The crucial stage is the adaptation, by which the manager keeps his identity and tries to accept the different culture. If there is a single trait that the domestic leader must demonstrate to be a global leader it is adaptability, which means displaying four distinct and increasingly difficult skills. First, the ability to operate across borders with confidence; second, to rise above the particularities of regions and cultures (Hofstede, 1983, 1984); third, to revel in diversity; fourth and most difficult, to operate in spite of high ambiguity and frustration. Aristotle wrote that the test of a first-class mind is the ability to hold two opposing ideas simultaneously and yet be able to function. How can we accept cultural differences without renouncing to our own identity? To answer at this question it is useful to distinguish the acceptance of different behaviours from the acceptance of different values. In this area Internet, in the last years, has mostly developed, allowing to human resources to share information, tools and “cultures”, contributing to an evolution in the value creation. Globalization represents a permanent change in the way business is conducted, and the Internet is part and parcel of that process.

Further, governance and responsibility area defines the objectives, accountability, and stewardship for a global organization and identify the company’s code of conduct for internal and external relationships as well as for business development around the world. According to Manardo (2000) Internet-related technologies have had the least impact on this capability area of the globalization diagnostic through the “ability to permit collaboration, proxy voting, and more dynamic and transparent financial information. On a human level, effective global boards of directors will increasingly need to be able to evaluate a company’s overall strategic plan, using the wisdom of accumulated industrial experience from across the globe as well as the innovative spirit of the digital economy.” Business is the major source of investment and job creation, and markets can be highly efficient means for allocating scarce resources (Capecchi, 2005; Freeman, 1992). They constitute powerful forces capable of generating economic growth, reducing poverty (Daly, 1997). But the gaps in rules, customs and institutions are often the main cause of the firms’ negative attitude above all in the field of human rights. The new actors, in the global landscape, bring problems which are both qualitative and quantitative. Quantitative problems are to be found not only in the increased number of actors, but, even more, in the impossibility to draw up a complete list of them. The qualitative problems are linked to the unusual characteristics of these actors which are mostly private actors with an institutional identity. They have neither state requisites nor a clear public identity so they are not liable to international laws. After their intervention, the international scene has become more crowded, dynamic and unforeseeable. This has caused the passage from an order marked by the international law to a global order regulated by a global governance where governance appears to signify a form of rule-making and rule-enforcing closer to the society and to the private interests. The international community is still in the early stages of adapting the human rights regime to provide more effective protection to individuals and communities against corporate-related human rights harm. The business and human rights agenda remains hampered because it has not yet been framed in a way that fully reflects the complexities and dynamics of globalization and provides government and other social actors with effective guidance. The focus should be on ways to reduce or compensate for the governance gaps created by globalization. Factors such as these make it exceedingly difficult to hold the extended enterprise accountable for human rights harm. However, the number of initiatives aimed at promoting standards, in this field, increases³², so collaborative models for their grievance mechanisms will likely become more important. This again underlines the strategic role of internet because such mechanisms require a strong collaboration among the members of the different organizations aimed at providing a single avenue for recourse and at achieving solutions.

Finally, even if globalization have contribute to an higher transparent construction, *internet* has made possible an effective reaching of different *stakeholder*. Each field of business management was affected by the

³² An example is represented by multi-stakeholder advisory groups (Nazioni Unite, Protect, Respect and Remedy: a frame work for Business and Human Rights – report of the Special representative of Secretary – General on the issue of human rights and transnational corporations and other business enterprises, 2008

use of the Internet: the management of transactions, online trading, the practice of investor relations, activities that have contributed to the construction of a square International trade efficient (Cacia, 2009).

So, internet and ICT becomes indispensable for all business functions and therefore, the information management move to value driver.

According to this hypothesis, internet have a fundamentals role, because give the possibility of divulge enlarge information compared with traditional vehicles, concern of economic and financial results, organizational structure, governance and behaviour rules, as well as guidance value (Rowbottom & Allam & Lymer A, 2005). Standardization and greater dissemination of information, therefore, can only generate a containment of redundancy of information and the risks of misinterpretation. This will help to generate in long-term, after the natural difficulties of introducing an innovation, benefits in terms of reduced costs of dissemination of information across the enterprise and increase the speed of acquisition and sharing of intelligence for market and, therefore, an increase in value.

Assigned an intense activities to the Internet it is not a simple instrument of information that amplifies and simplifies the interactions of enterprises, in reality, although there is not yet a great literature, the *Net* assumes various "configurations", the main ones can thus be summarized:

- service, simplifies and facilitates the access of the market to the offer;
- service of support, integrating part of the product as an example the reservation;
- half of distribution, e-commerce;
- mass media, e-communication;
- half informative, traditional role.

In this researches, the focus of proposed model is not to define the configurations of Internet but the its role in the value creation processes in a globalization perspective. To such scope we propose a new model given from the synthesis of two models:

- Globalization frame work.
- Enterprise 4.0.

The first one, as explained before, provides a structure for the concept of globalization, the second one is a model that highlight the potential relation flows on the internal side of enterprise and between enterprise and outside, and *vice versa*, that could be activate by the web. The added value of the search could be identified in the application of the 4 directions of Internet model (Giacomazzi & Camisani, 2008) in order to verify the link between directions (one, more or all) and areas; in last analysis, the aim is to identify the strategic directions in relation to each area and the respective sign of the direction.

So, in light of this consideration, internet, pushes the different parts of enterprise and of external environmental in more directions; the principal objective of enterprise, therefore, is that of make attention on each vector possible that New Web can generates.

The Net permits to enterprise of amplify the action of information but also it's make possible to extern public – market and stakeholders – to have more instruments for communicate whether with enterprise or whether between their.

The opportunity is: one multiply the contact point and the powerful of every parts of information process increases. Into figure number 2 – to follow represented – we have analyzed and elaborated the model Enterprise 2.0 of Giacomazzi & Camisani (2008).

"Enterprise 2.0 is a set of organizational approaches and technological support for certification of new organizational models that include the creation of an adaptive architecture, the application of collaborative tools of the Web 2.0 and the use of technology as an enabling platform processes and relations " (Polytechnic of Milano).

The model highlight the possible relationships that the Web can activates and keep, in according to Giacomazzi and Camisani (2208) – authors of model Enterprise 2.0 – the possible direction of relation flow are four.

All direction involved different subject, in fact, the direction *within-outside* start from enterprise to market (i. e. supplier, competitor, potential and/or effective customer) and to stakeholders (media, policy maker, citizen, et. al.); the direction *outside-within* is originated from external environmental (stakeholders and market) to enterprise. the direction *within-within* is originated is turn to internal subject of the enterprise, i. e. idem or different levels of the human resources.

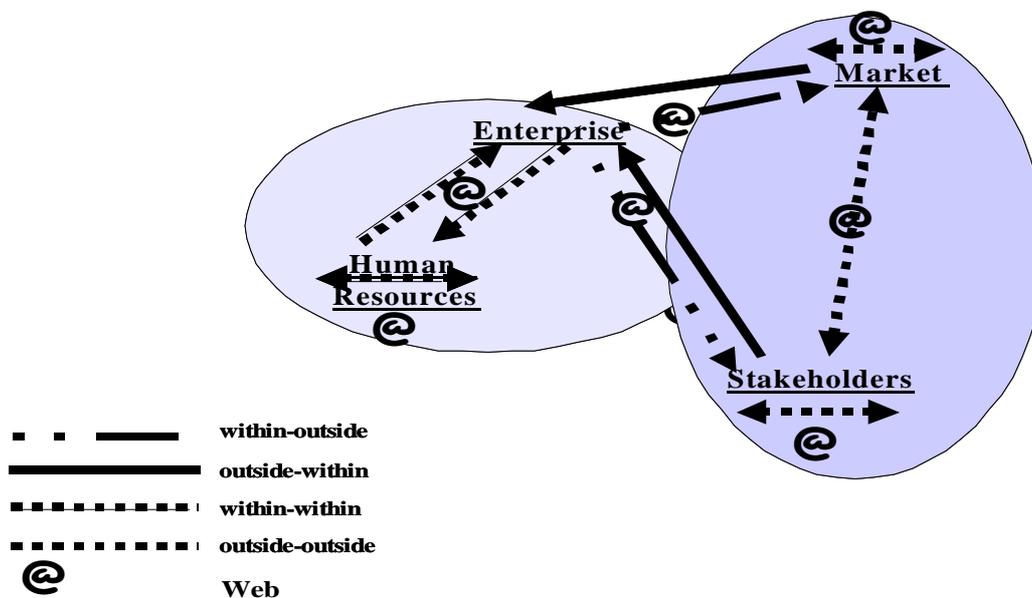


Fig. 2 – Enterprise 4.0: elaboration and role of Internet

Source: ours elaboration of Giacomazzi & Camisani's model (2008).

All direction involved different subject, in fact, the direction *within-outside* start from enterprise to market (i. e. supplier, competitor, potential and/or effective customer) and to stakeholders (media, policy maker, citizen, et. al.); the direction *outside-within* is originated from external environmental (stakeholders and market) to enterprise. the direction *within-within* is originated is turn to internal subject of the enterprise, i. e. idem or different levels of the human resources. The direction *outside-outside* is generated and destined from/to external environmental, i. e. market (customer-customer, competitor-customer), between stakeholders (policy maker-media), between market and stakeholders (policy maker-competitor, consumer association-customer).

For every directions on can to identify one or two different bidirectional flow, its are possibly by Web 2.0 instruments:

1. *within-outside*: e-mailing, the activity of direct marketing – consents an asynchrony communication between the parts, overcome all space-time barrier, the wiki, that is a site web or collect of documents localized on the Web where all parts can to insert different contents. It's an collaboration instrument to share on-line knowledge, the important aspect is that it's possible "recuperates" the inserts and the modifications into database in every time.
2. *outside-within*: the social market sensing, that is the study and the constant monitory of all that the people tell into social network with reference to enterprise-product-brand. Il social bookmarking che permette la condivisione dei link selezionati dall'utente.

3. within-within: instant messaging (Chat) – allows to communicate in real time with a synchronic method; the internal wikis permit the sharing of a “white space” where it’s possible to place and to modify different contents; e-mail, the communication is asynchrony, there isn’t space-temporal barrier.
4. outside-outside: social network – virtual “space” where a groups of people are register, they can interact between them, the OWOMM (Word of Mouth Marketing online) – online pass mouth, the forum – notice board where every subject can to insert a content, it’s share. An important aspect is that the eEnterprise doesn’t part of relationship process but it is the object.

Enterprise 4.0 means to apply of Web 2.0 to enterprise, it include different important instruments to modern firm. It’s a concept derived from that of: enterprise and web 2.0.

The models analysed and elaborated can to be instruments of strategic support for an enterprise or a territory’s policy maker, since its permit a new and dynamic point of view that on founds:

- full vision of business area and role of internet into globalization process,
- amplification of relationship by internet’s instruments.

Into article on apply the models to Campania Region’s Projects – ItalMed and ItalBalk – in order two motif: this projects utilise Internet as strategic point in all business area and its have as crucial point of globalization internet’s instruments.

The second motif is that between parts of project on can amplify the relationship by direction and instruments of web 2.0. The models showed can be for both business strategy and territorial strategy, in this paper the case study is a territorial project.

CASE STUDY: CAMPANIA REGION’S PROJECTS IN THE TRANSPORT AND LOGISTIC SECTORS.

Campania Region, together with other Italian Regions, has increasingly become dynamic in international relations not only in terms of the new constitutional competencies but also because of its growing intention to cooperate with neighbouring countries. These activities are part of various programs and initiatives financed by national funds within the Support Programme for Regional Cooperation and by EU funds through Interreg III which is an initiative of the European Regional Development Fund (ERDF) for cooperation between EU regions. The Campania Region has carried out several interregional projects in the field of logistics and freight transport. Among the most recent are:

<i>ITALMED</i> <i>Integrated Transport and Logistics linking Italy and South Mediterranean Countries (Morocco, Tunisia, Egypt, Algeria) within the line 2.2 (material and immaterial infrastructures) of the Support Programme for Regional Cooperation</i>
<i>General objectives</i>
<ul style="list-style-type: none"> • <i>to increase economic and productive integration, enhancing import/export trade and direct foreign investments of Italian companies,</i> • <i>to support Italian role of Mediterranean logistics platform;</i> • <i>to contribute to logistics' rationalisation to support specific supply chains;</i> • <i>to improve participants skills in managing International cooperation programmes about transport and logistics.</i>
Lead Region: <i>Campania Region</i>
Italian Partners: <i>11 Regions (Abruzzo, Basilicata, Calabria, Emilia-Romagna, Friuli Venezia Giulia, Lazio, Liguria, Puglia, Sicilia, Toscana e Veneto)</i>
Foreign Partners: <i>Maroc, Algerie, Tunisie and Egypt</i>

<i>ITALBALK</i> <i>Integrated Transport and Logistics linking Italy and Balkans countries (Serbia Montenegro) within the line 2.2 (material and immaterial infrastructures) of the Support Programme for Regional Cooperation</i>
<i>General objectives</i>
<ul style="list-style-type: none"> • <i>to increase economic and productive integration, enhancing import/export trade and direct foreign investments of Italian companies,</i> • <i>to contribute to logistics' rationalisation to support specific supply chains;</i> • <i>to improve participants skills in managing International cooperation programmes about transport and logistics.</i>
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Foreign Partners: <i>Albania, Serbia, Montenegro</i>

The launching Conference of ItalMed/ItalBalk projects, held in Naples at the Maritime Station, on July 14, is the first concrete result which gave to national and foreign partners the opportunity to discuss about transport and logistic issues and about their respective starting points and to bind themselves to the project rules as a prerequisite for a common commitment towards specific projects. ItalMed/ItalBalk projects fall within the APQ (Accordo di Programma Quadro) initiative for Mediterranean and Balkans areas financed by national funds (CIPE). The reference to ItalMed/ItalBalk projects in this paper is explained by the fact that the achievement of the project's objectives confirms internet centrality to enhance actions aimed to create value. Communication is important to make closer people that represent different countries and cultures and the use of internet makes it possible in a clear and direct way. The goals of ItalMed/ItalBalk projects need a correct management of all component of the model showed in this paper which is possible mainly through a good use of internet.

A "good" use of internet doesn't depend only on the knowledge and awareness of the instrument, but also on particular skills and abilities of people who employ it to distribute information or data about the projects themselves among foreign partners that, in most cases don't share the same values and cultures. The main skill, in this kind of projects, is to have a multicultural knowledge aiming to obtain an effective and

emphatic interaction between different players. In the projects' first stage, internet had a central role mainly for the spread of information among the partners and the institutions involved and for the correct management of the relationship between the RUP of the projects – Campania Region – and the implementing board – Logica³³. The first stage of projects ended on July 14 with the Conference ItalBalk/ItalMed at which each partner was represented by both institutional and technical experts. Each of them shared his work with all the participants of Conference through a power point presentation - which emphasized strengths and weakness of the respective areas of competence. The following table (Tab. 1) shows the objectives reached through the use of internet:

<i>Projects' stage</i>	<i>Internet role</i>	<i>Objective</i>
Early step <i>preliminary activities (desk research and analysis, human resources recruitment, partners' spotting, and partnership building)</i>	<ul style="list-style-type: none"> • <i>increase of the chance to recruit effective human resources</i> • <i>survey on logistic and transport systems at different levels: regional; national; European and Mediterranean</i> • <i>collection of data about national and foreign partners and their role in the in field of logistic and transport</i> • <i>communication for the partnership building</i> • <i>information exchange between RUP - Campania Region – and the implementing board aimed at the accomplishment of administration procedures which are necessary to the partnership building (agreement understanding)</i> 	<ul style="list-style-type: none"> • <i>time reduction and costs reduction</i> • <i>increase of the contact opportunities</i> • <i>spread of data emphasized by the survey</i> • <i>increase of the chance to build a program of activities aimed at the cooperation for the development of projects' ideas</i> • <i>built of a table about a description of each partner and the data concerning its competence, potential and prospective</i> • <i>increase of the chance to communicate and transmit data and information</i>
Second step <i>Steering Committee</i>	<ul style="list-style-type: none"> • <i>Elaboration of a short list of experts</i> • <i>send of invitation to experts, institutions representatives</i> • <i>spread of the Steering Committee rules</i> 	<ul style="list-style-type: none"> • <i>Time and costs' reduction</i> • <i>Multicultural barrier reduction (amplified by internet)</i> • <i>Share of projects' objectives</i> • <i>Increase of communication about the projects' ideas and rules</i>
Last stage <i>Conference organization</i>	<ul style="list-style-type: none"> • <i>Organization and coordination of work among</i> 	<ul style="list-style-type: none"> • <i>Time and costs' reduction</i> • <i>Increase of the knowledge</i>

³³ Logica was founded in 2004 on the initiative of the Department for Transport of the Campania Region, which participates in the corporate team through the Ente Autonomo Volturno. It is a mixed public-private consortium also participated by associations of firms in the world of transport and logistics, and from managers of logistic infrastructure of Campania. Its mission is to promote the system of goods field, even through the recognition of Ontario as a territory of excellence in logistics and freight transport. Logica offers its knowledge of the regional context, which is translated into a local marketing activities and analysis of the manufacturing base and business.

	<p>partners;</p> <ul style="list-style-type: none"> • Effective management of activities: • Utl (foreign representatives of national institutions)/ • Ambasciate; DGCS MAE/UTL; Campania Region/MAE/UTL; • Campania Region/Logica; Campania Region/national and foreign partners 	<p>about the partners' work progress in field of logistic and transport</p> <ul style="list-style-type: none"> • Increase of the capacity for putting to work the different partners • Increase of the chance to know and learn from the experience of other partners
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Tab. 1 - ItalBalk/ItalMed: The rule of Internet Source: our elaboration

The table above shows the role of internet in the implementation of the integrated projects ItalMed/ItalBalk.

Role amplify into figure n° 3, were one applies the model “Dynamic Internet –Globalization framework”. In relationship every area one analyzed the role of Internet into two project. From the model emerges the strategic importance of Internet in every business area.

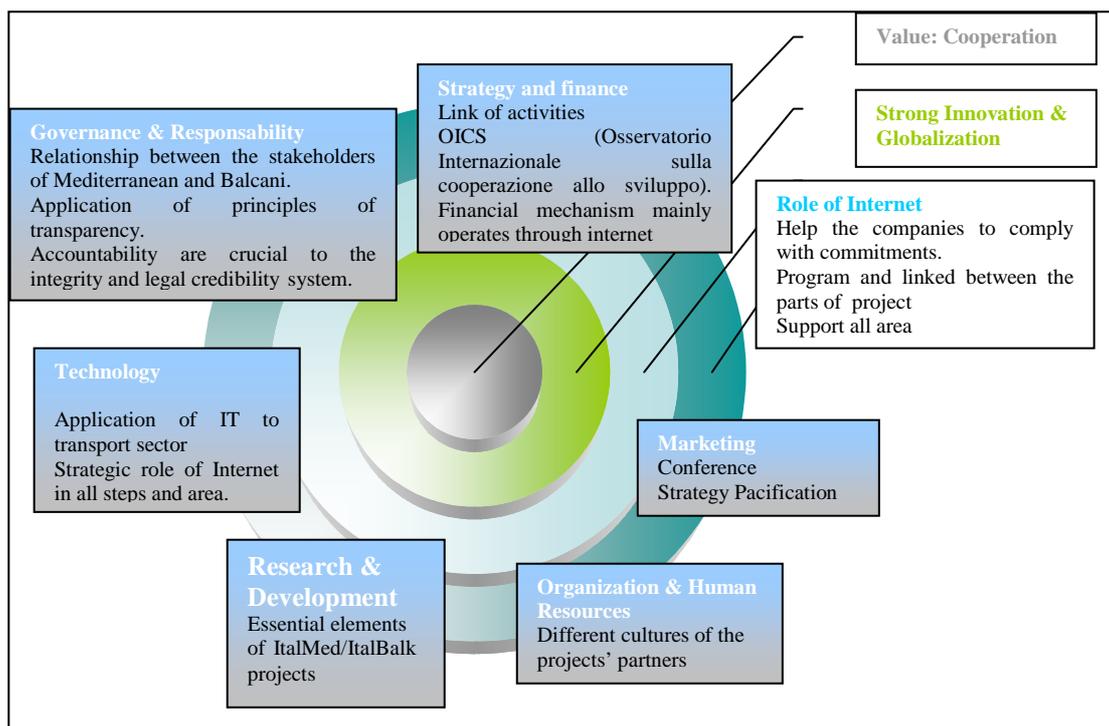


Fig. 3 – Dynamic Internet –Globalization framework: Application to Ital-Med and Ital-Baltik. Source: our elaboration

The different projects' stages need the use of internet for many purposes that correspond to the different parts of our model:

Operations and technology

Internet is a direct response to the ever-increasing need for better project management. In particular it is useful for defining, planning, scheduling, controlling and organizing project activities and transfer them to other project partners. But technology is a very important tool in project management not only because of

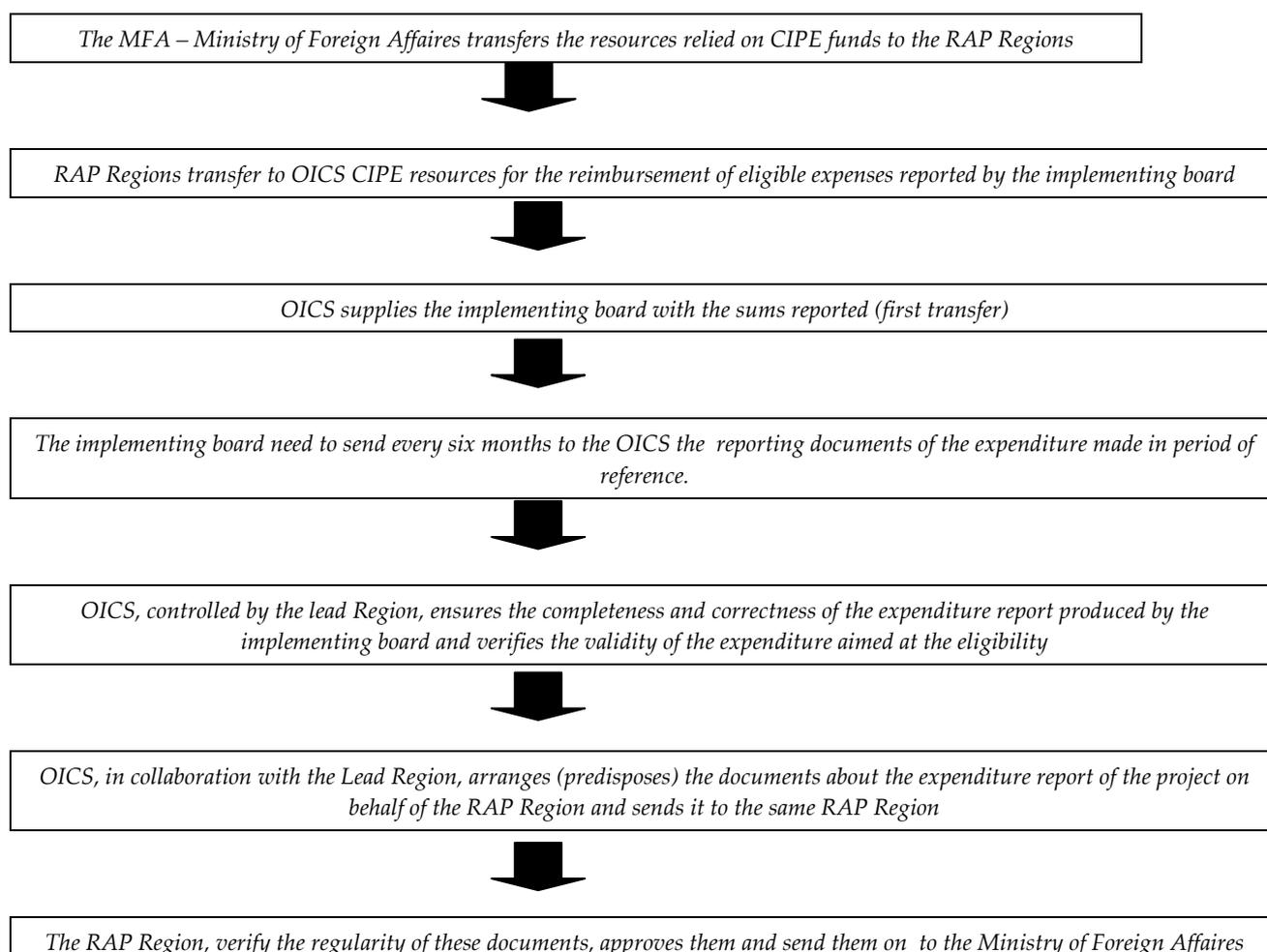
the reduction of time it makes possible in the implementation and realization of the project's activities, but also for its contribution to its main objective that is to create a multimedia platform constructed as a website in which partners can meet and know the results achieved by the others. The purpose is to provide an instrument to improve communication and cooperation among the projects' partners. The importance to know how other partners are working and which results they have reached is clear: it lets partners to compare their conditions with the others' and to share solutions to the same problems, but it mainly stimulates a sound competition among partners and a sort of spirit of emulation. It is also necessary a database to collect and preserve data relating to the projects' issues.

Research and development

Research and development are essential elements of ItalMed/ItalBalk projects mainly because they are aimed at the start of a development process and particularly at the establishment of Italy as main actor of a commercial platform in the Mediterranean area.

Strategy and finance

Internet also gives aid to the activities linked to the expenditure reporting that need to be transferred to the OICS³⁴ (Osservatorio Internazionale sulla cooperazione allo sviluppo). Indeed, the financial mechanism mainly operates through internet. The figure below show the steps of financial mechanism



³⁴ OICS is the actor intended to make direct payments claimed by lead regions, while ensuring the regular reporting on behalf of the RAP (regions responsible for projects) regions.

together with the request for disbursement of the subsequent CIPE contribution

Fig. 3 - Steps of financial mechanism

The transfer of funds from MAE - Ministry of Foreign Affairs and MISE – Ministry of Economic Development to the projects' partners only happens when the agreement with OICS is signed by all partners. This stage is preceded by the financial monitoring of the costs, already realised and to realise in the next stages, carried out by the MISE through the RAP (administrative responsible for process) intermediation. Each partner transfers the financial information to the RAP of project and the RAP collects all this information and transfers it to the MISE. Ministry of Economic Development which lastly send it to the MAE for the disbursement of the CIPE contribution.

Governance and responsibility

The role of good governance and corporate responsibility in helping to assure the well-functioning markets needed for economic growth and development is certain. It requires both private initiatives and strong government action and an effective spread, through internet, of the data about companies which represent examples of good practice.

Good corporate governance – the rules and practices that govern the relationship between the managers and shareholders of corporations, as well as stakeholders like employees, pensioners and local communities – ensures transparency, fairness and accountability. It is a prerequisite for the integrity and credibility of market institutions. By building confidence and trust, good governance allows the corporation to have access to external finance and to make reliable commitments to creditors, employees and shareholders. It is this contract that underpins economic growth in a market economy. Clearly, the importance of good corporate governance goes far beyond the interests of shareholders in an individual company. Indeed, the corporate governance principles of transparency and accountability are crucial to the integrity and legal credibility of our market system. There evidently is a need to provide further guidance, particularly with respect to achieving effective implementation in the dynamic markets of the 21st century. Cooperation agreements aimed at local development, as in the case of ItalMed/ItalBalk contribute to create a global form of governance, at least among the projects' partners, by the establishment of an effective sharing of rules. These rules increase "corporate responsibility". The term "corporate responsibility" refers to the actions taken by businesses in response to society's expectations, increasing in this way, the value of the firm. In fact, the next stage of ItalMed/ItalBalk will be the organization of B2B meetings for the creation of new projects in field of logistic and transport. To reach the main objectives of the projects it is necessary that the business which will be going to operate in the territories of foreign partners adopt a code of conduct that take in consideration also local expectations. Indeed, experience has shown that companies that do so are generally the best performers in the long run. The challenge of meeting these expectations is central in international projects with firms typically operating in a number of legal, regulatory, cultural and business environments. Multinational enterprises sometimes are perceived as taking the money and running, not doing enough to build up local economies, and so on. They are accused of being party – in many cases, inadvertently – to serious problems such as corruption of public officials, human rights and labour rights abuses and environmental damage. Companies have to address such concerns when they arise. In fact, apart from ethical considerations and the law, their host country market valuations would suffer if they ignored them. ItalMed/ItalBalk may contribute to develop codes of conduct and management to help the companies to comply with these commitments. The development of these codes and their application requires an incisive role of internet.

Marketing

Internet has been an important instrument for the implementation of the marketing strategy linked to ItalMed/ItalBalk projects. The first stage of the projects has finished with the organization of the launching Conference held in Naples on July, 14. In this stage internet has helped to inform and invite representatives

of each foreign partner both institutional and technician and to have their power point presentations before the Conference start for translation. The Conference has been followed by a visit of the participants, foreign representatives enclosed, at the Port of Naples and at the Interport of Nola. This part of the program would not be possible without the use of internet which has made possible the collection of the adhesions to the visit and the its organization.

Sales and service

ItalMed/ItalBalk should have to end with the cooperation among institutions and corporations of the different partners involved in the programme aimed to the implementation of the specific projects relating the logistic and transport systems. To reach this aim it is necessary that each partner could sell to the others its services and goods. In the case of an integrated project, in which foreign partners are involved, the only system to reach them, in a first stage, is internet.

Human resources management

The importance of human resources management in the implementation of international projects is explained by the need to succeed in overcoming troubles linked to the different cultures of the projects' partners. The case of ItalMed/ItalBalk shows as an effective management of differences is a condition of the projects' result. It is not sufficient to use internet; it is necessary to transfer information in a language and a form which are the same of the people al which it addressed. In this way, the cooperation may be effective because it relies on the mutual knowledge of the parts.

Remarks

The case study realized has raised remarks which emphasize the importance of internet for the implementation and management of integrated projects as ItalMed/ItalBalk. All initiative which aims at the achievement of a partnership, in whatever sector of activities, entails the use of a tool good for keeping contact among the actors involved. In this prospect, the role of internet is strategic for the various steps of the projects' management which enclose the different parts of the model showed in this paper from Governance and responsibility to Human resources management. Internet can give aid to the various aspect of the implementation of projects not only in the field of internationalization, but also for the implementation of all policy aimed at the achievement of a strong cooperation, In the present scenario, characterized by globalization, cooperation is a need for every action which wants to add value.

CONCLUSION

Detailed diagnostic survey that was used to delve more deeply into how successful companies globalize their operations and to evaluate their processes, experiences, and best practices. The contribution of the research is to supply an evolution of the model, to which the UGC (User Generation Content) has been pointed out previously, that, in concrete terms, considers Internet instruments supporting the business areas in order to allow the companies to Co-create value with the several ones stakeholders (as an example) an instrument of the net that allows the customer of the platform supplied from the company to create content in order to make "to grow" the same one. This process of Co-creation does not invest alone the customer but various actors and different levels. Using our model detailed diagnostic survey that was used to delve more deeply into how successful companies globalize their operations and to evaluate their processes, experiences, and best practices. Concluding remarks focus on this case and the application of the model Enterprise 4.0 to the two projects - ItalMed and ItalBaltik - examined. The following figure shows the application of the model the role of the Internet in creating value for all parties involved in projects, particularly to reduce time and costs and for increased co-relation between the parties.

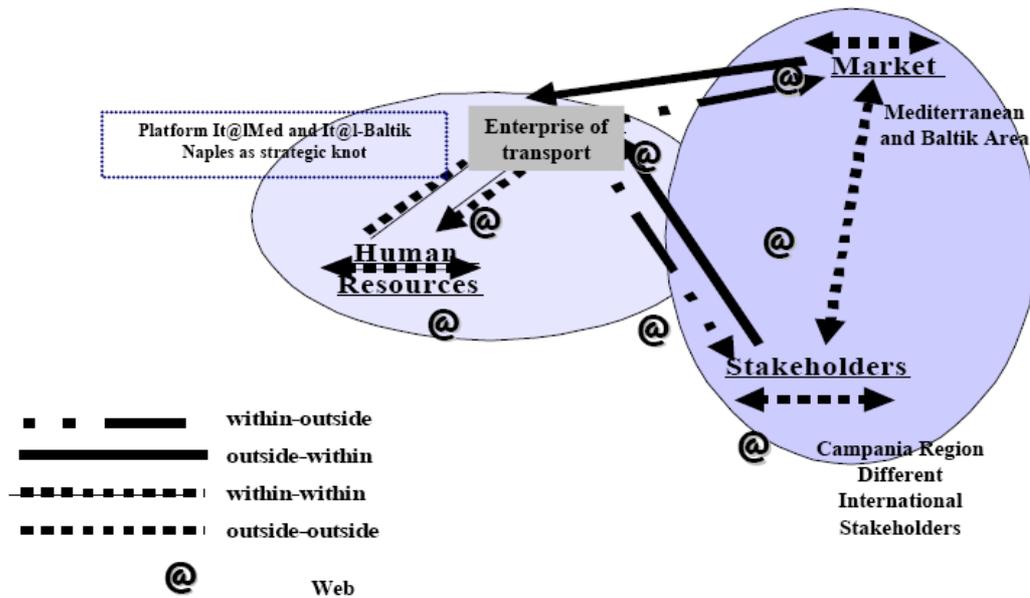


Fig. 4 –

Enterprise 4.0: elaboration and role of Internet: Application to ItalMed and ItalBaltik project. Source: ours elaboration.

The projects Ital-Med and ItalBaltik have stressed the strength of role of Internet in order two reasons:

1. The relationship between stakeholders has been reinforced by instruments of Web, in particularly of Web 2.0; the consequences are a reduction of time and costs and the possibility of a speed cooperation between different geographic areas.
2. The strategic instrument of transport project (Ital-Med and Ital-Baltik) is a information technology platform, that is in phase of realization and implementation.

The limits of research are that the case study is in phase of start-up, but the opportunity of research is that the model proposed could help firms in their process of value creation. However, a more critical concern is that the models are not based on objective evaluations of a firm's resources. Future researches should focus on developing better metrics for evaluating business resources. The limitations listed above suggest avenues for additional research. Anyway, the considerations exposed and the models elaborated can be utilised for different territorial or business activity or project because they are general models.

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COMPETITIVENESS AND PERFORMANCE OF THE ITALIAN REGIONAL GOVERNMENTS. THE REFORM OF THE ACCOUNTING SYSTEM

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LITERATURE REVIEW AND RESEARCH QUESTIONS

The evolution of economic systems, the increase of the competitive boost and the European integration have highlighted a continuous change process in the production of social services managed by public and private companies

As to the Italian public sector, strategies and management policies must be defined to the requirements of the community managed.

More specifically, the public administration has to legitimize its presence by increasing the “production value” through the achievement of results that, in the perception of citizens, should be at least equal to the used resources.

In other words, the Italian public sector should fulfil the performance conditions and the information system should be suitable for supporting the government in its final decisions for the achievement of institutional goals conforming to the strategic effectiveness and the operational efficiency (Cavaliere, 2005; Ferraris – Franceschi, 2005).

The Public Sector Entities (PSE) can be analyzed by using a dual perspective (Borgonovi, 2005):

1. *the political and institutional perspective*, concerning the evolution of the political-institutional structures in the public administration;
2. *the management perspective* concerning the management of resources to complete the objectives and results.

As to the first perspective, the political and the institutional changes depend on (Airoldi, Brunetti and Coda, 2005):

- the evolution of the stakeholders’ needs, the change of the operational areas submitted to the management action and the change of the tools adopted for these specific areas;
- the evolution of the relationship between the different levels of the government;
- new relationship patterns between PSE and stakeholders.

As to the second perspective, management changes are a result of the introduction of tools borrowed from the private sector in order to improve the management of the public activities. These advanced tools are related to the New Public Management³⁵ and the Public Governance³⁶.

The New Public Management (NPM) and the Public Governance (PG) include as follows:

- a redefinition of professional competences and of the role of the intermediate government levels in the social-economic environment (Carmichael, 2002);
- an improvement of accounting-information systems to meet the new requirements of accountability.

³⁵ PUMA-OECD, 1995; PUMA-OECD, 1996; PUMA-OECD, 1999; PUMA-OECD, 2000; PUMA-OECD, 2002; PUMA-OECD, 2005.

³⁶ BEVIR-RHODES-WELLER, 2003a; BEVIR-RHODES-WELLER, 2003b; BOVAIRD-LOFFLER, 2001; CONSIDINE-LEWIS, 2003; KETTL, 2000; MENEGUZZO, 1999.

According to this aspect the New Public Financial Management (NPFM) introduces: new performance measurements, new accounting systems based on the adoption of accrual accounting and, in particular, new structures of financial statements.

Referring to the reforms inspired by the principles of New Public Management and Public Governance, the innovations of the accounting information system in the budgetary accounting should improve the information quality available to the executive-managers and all stakeholders. These innovations should support planning, programming and control processes too.

Furthermore, the adoption of new accounting rules should allow the streamlining and the simplification of the structure in the financial statements. The purpose is to make a more functional budget to the current stakeholders information needs.

In particular, the introduction of accrual based accounting and financial reporting in public sectors of many jurisdictions throughout the world is an essential element of the public sector management reforms.

As matter of fact, the introduction of accrual accounting is an important component of the New Public (Financial) Management reform movement in order to enhance efficiency, effectiveness and accountability. Several studies have shown that the trend towards accrual accounting is likely to continue over the years to come (Lüder and Jones, 2003). Furthermore, international organizations like the International Public Sector Accounting Standards Board (IPSASB) and the OECD Public Management Committee (PUMA) support such a move³⁷.

The supporters of the accrual accounting have emphasized its ability to better meet user needs and its consistency with the overall shift from ex-ante constraints to ex-post accountability.

The aim of the interaction of the dual perspective is to increase the level of efficiency of regional government by creating an accounting system which should help to evaluate public performance.

In addition the regional governments in the European Union are within a governmental level leading to an increasing improvement originated by the fiscal decentralisation.

Following this review during the last fifteen years, the Italian public sector has been involved by a wide reform process (Rebora, 1999) which has changed both perspectives.

Some of these reforms are related to the regional government.

In particular, *as to the political and institutional perspective*:

1. the application of the principle of subsidiarity indicated in the Maastricht Treaty, decentralizes the legislative and administrative functions to the regional and local governments. Consequently, the Italian regions represent the main reference bodies for local governments (Borgonovi, 2001; Longo, 2001) ;
2. the reduction of the financial state transfers and the introduction of the fiscal federalism³⁸ imply a focus on the issues related to the sustainability of some programs.

³⁷ In literature, the introduction of accrual accounting has been the subject of significant debate (Anessi Pessina-Steccolini, 2007). There are a considerable number of papers both in support of and against the adoption of accrual accounting in public sector. For a small sample of papers which support accrual accounting, see (Barrett, 1993; Evans, 1997; Gillibrand and Hilton, 1998; Pendlebury and Karbhari, 1998; Rowles, 1992 and 1993; Talbot, 1998). In contrast, for a small sample of papers which express critical views, see (Guthrie, 1993 and 1998; Jones and Puglisi, 1997; Ma-Matthews, 1993; McCrae-Aiken, 1994; Mellett, 1997). Supporters have emphasised its ability to better meet user needs and its consistency with the overall shift from ex-ante constraints to ex-post accountability. Critics have raised both theoretical and practical objections.

From a theoretical viewpoint, scholars (Montesinos et al., 1995; Monsen and Näsi, 1998) argue that budgetary (or cash accounting) is more consistent with the intrinsic nature of PSE. From a practical viewpoint, scholars argue that the introduction of accrual accounting has raised significant implementation problems (Guthrie, 1998; Stanton and Stanton, 1998; Newberry, 2002; Carlin and Guthrie, 2003; Hodges and Mellett, 2003) and has often produced very limited improvements in the quality of information provided to managers and other stakeholders.

³⁸ The main points of the fiscal federalism are:

3. the direct election of the Regional President by the citizens of the Regions ensures more stability to the regional governments.

On the basis of these considerations, the regional governments will concentrate their attention on legislative functions, planning and monitoring of the outcomes of the administrative activities delegated to the local governments.

The abolition of some financial state transfers to the regions and the introduction of some regional taxes will result in a better focus on the issues for the sustainability of some activities as well as the application of the social and political decisions to the administrative decentralization.

As to the management perspective the adoption of NPM, NPFM and PG implies a general improvement to: the programming and control processes, the resources allocation and the provision of public services.

In this way, the Italian Regions should revise the accounting information system to meet the growing information needs arising from the implementation of the federalism processes.

Indeed, the empowerment of regions in fiscal policy has a strong impact on planning and control functions. The managers should estimate revenue and expenditures dynamics, and subsequently the economic and financial viability of the programs.

The regional accounting information system plays a remarkable role in the accountability field for:

- the assessment of the choices to implement the plans and the programs in terms of congruence between the results and the objectives;
- the economic and financial management of the resources;
- the management of the assets;
- the assessment of performance in all the organization levels;
- the analysis of costs and benefits generated by the government administration.

Under these conditions, the move towards accrual accounting system could satisfy these profiles of accountability.

The paper research focus concerns the Italian regional accounting reform introduced by the Legislative Decree March 2000, No. 76 regarding the fundamental principles and the rules of coordination in the regional accounting and budget system.

This reform tries to establish a relationship between the regional organizational structure and the budget authorization process, by creating new items called «Unità Previsionali di Base» (UPB) representing the different units responsible for managing definite resources and specific objectives within the regional organization. Because of the differentiation in the organizational structures of various Italian regional governments, UPBs don't seem clearly defined.

More specifically, the purpose of this research is to identify one or several models allowing us to understand if the UPBs implemented by different regional governments are in accordance with the aim of the reform process.

The research questions to submit are as follows:

- is the new budget structure coherent with the aim of the reform process?

-
- the abolition of some government transfers to the regions;
 - the introduction of several regional taxes;
 - the establishment of an equalization fund.

Constitutional reform stipulates that the administrative functions of regional authorities are ensured through revenues from local taxation, however the Italian state may take some actions; in fact, sometimes it allocates additional resources to local authorities. The purpose of such government intervention is to ensure the delivery of essential services; for the other regional activities the regions use their own financial resources.

- is the information provided by the accounting systems appropriate to the stakeholders (in particular, managers) requirements?
- is the implementation of the UPBs in different regions coherent with the needs of national and international accounting harmonization?

The hypotheses formulated in this paper are that the implementation of the reform process and the fulfilment of the accounting system are partially inadequate allowing for the informative needs of managers and the national/international accounting harmonization.

I will try to answer to these questions by:

- illustrating the Italian regional accounting reform introduced by the Legislative Decree March 2000, No. 76 and defining the features of UPBs in the new budget structure (see § 2);
- analyzing the different regional models that use the UPBs in the budget (v. § 3).

In the final section, I will discuss the results and draw conclusions (§ 4).

THE ITALIAN REGIONAL ACCOUNTING REFORM: THE NEW BUDGET STRUCTURE

The Italian regional accounting reform took place through the approval of Legislative Decree 28 March 2000, No. 76, regarding the fundamental principles and rules for the regional accounting system and financial reporting. In particular, this Decree replaces the previous legislation and redesigns the regional accounting system. The innovations have been introduced to conform the regional budget structure with the state budget structure, (reformed a few years earlier), as well as to permit the consolidation of public accounts.

This revised regional budget structure reflects the state budget structure, following the criteria issued by the Laws No. 208/1999 and No. 94/1997.

The above said laws introduced the budget as a guidance for the public managers and their administrative decisions (Anselmi, 2001; D'Alessio, 1992; Pitzalis, 2001). The specific law No. 94/1997 suggests two main documents: the "*Decision-making budget*" as a "political document" and the "*Management budget*" as an "administrative budget".

These documents should improve the decision making process and the functioning of the administrative structures.

The "*Decision-making budget*" identifies several budget units called Unità Previsionali di Base (UPB) to which financial resources are allocated through a parliamentary approval. Each UPB is a responsibility unit; then, the budget reflects the organizational structure of the State.

The "*Management budget*" is attached to the decision-making budget and identifies revenue and expenditures by a detailed classification.

As to the regional accounting reform, the apparent trend is to:

- a) simplify any formality relating to "*Planning, Programming, Budgeting System*"³⁹.

More specifically, the regional legislation contains a more general reference on the programming, because the "Regional Development Plan" is no longer required.

E.g. many regions have different medium-term documents, such as sector programs and so on.

- b) strengthen the accounting tools required to demonstrate the achievement of results aiming to the targets set out by the national legislation.

More specifically, the Regional Council approves the budget and decides about the acquisition and the allocation of financial resources proposed in the UPBs by the Executive.

³⁹ For more details concerning the "*Planning, Programming, Budgeting System*" see Jones and Pendlebury, 2000.

The new regional budget structure reproduces the state budget structure and it is divided into two main documents:

- the *Decision-making budget* which is articulated in UPBs and approved by the Regional Council. The expenditures and the revenue chapters are aggregated in the UPBs for a functional destination and institutional or economic nature;
- the *Management budget* which is articulated in more specific items called chapters and referred to revenue and expenditures. The Executive is responsible for the management budget attached to the political budget.

In this way, the financial resources are allocated through the approval voting of the Regional Council on the political annual budget; subsequently, the Executive manages these resources to achieve short-terms programs and projects of each UPB.

Each UPB represents different units of the organization with defined resources to manage, specific goals to achieve and clear responsibilities. The exact definition of these new items tries to establish a relationship between the organizational structure of the regional government and the budget authorization process.

The structure of annual budget follows a criteria of decreasing aggregation.

The Revenue are classified into:

- *Titles* identifying the main revenue sources;
- *Classes* according to the revenue type;
- *UPBs* for the Regional Council approval identified by each Region;
- *Chapters* for the management budget.

The Expenditures are classified into:

- *Target functions* conforming to the regional policies;
- *UPBs* for the Regional Council approval identified by each Region;
- *Chapters*, for the management budget.

A classification of the expenditures in "*Target functions*" and in "*UPBs*", shows the connection between the use of financial resources and the regional strategies; it, also, identifies the allocation of resources to the regional ranges of action.

In this way, the annual budget highlights the political choices for the allocation of financial resources.

According to the new approach, the regional annual budget follows the guidelines as identified in planning and programming documents.

The legislative decree does not regulate some aspects of the regional accounting system. As a consequence, the Regions have the opportunity to make their choices by themselves as listed below:

1. the introduction of further documents for the planning processes;
2. the definition of the UPBs in the annual budget;
3. the identification and the representation of the *Target functions* such as the first level of the expenditures in the annual budget.

This new approach to the budget drafting and the proper definition of *Target functions* and *UPBs* are the key for:

- focusing the attention of the Regional Council on the action priorities and the regional policies;
- identifying the responsibility of managers on the manage of the resources;

- establishing a link between planning, programming and control processes, annual budget and financial statements;
- specifying the link between policy aims and resources;
- identifying the similar areas of activity (UPBs);
- improving the information quality related to the activities pursued, the goals achieved and the resources used.

The exact definition of the UPBs in the annual budget should produce an improvement of accountability and it should meet the changing needs expressed by stakeholders.

In more specific terms, the annual budget divided into UPBs should allow:

- a better manage of the resources, through a clear assignment of the responsibilities in the achievement of the goals;
- a better understanding of the Executive politic choices concerning the community managed.
- In this way, the annual budget should permit to identify “who manages the resources” and “what is done with the resources managed”.

For this, it seems appropriate to:

- analyze the procedures for defining the UPBs and the different regional models which implemented the UPBs in order to verify the presence (or not) of a structured and logical connection between the UPBs and the programs and the targets. This connection ensures a dual role of the annual budget as a tool for programming and planning system and for supervising the financial statements too;
- verify the accountability quality of the different annual budget models to the information needs raising from the reforms inspired by the principles of NPM and PG.

In the third section the empirical analysis tries to identify one or more models which should help to understand if the UPBs implemented by different regional governments are coherent with the aim of the reform process.

THE MODELS OF THE REGIONAL ANNUAL BUDGET

The empirical analysis is based on the contents of the regional laws concerning the accounting rules of all Italian regions with an ordinary statute. This analysis is limited to the definition of revenue and expenditures UPBs in the annual budget.

The empirical analysis identified two different models:

- the first model refers to the organizational structure. This model aggregates the chapters according to the organizational structure; it chooses the same logic of aggregation adopted by the national law up to 2007 for the state budget;
- the second model refers to the institutional competences defined by the regional laws and statutes. This model aggregates the chapters in conforming to regional functions and ranges of action.

The model of the organizational structure

In this model each organizational division corresponds to a single unit of administrative responsibility; so, each manager of the unit manages a set of financial resources.

The organizational structure is based on the national law for the state budget up to 2007; i.e. in the state budget the UPBs represented a set of financial resources allocated and managed by the Ministries in relation to the organization of General Directions ⁴⁰.

As to the regional organizational structure the units of administrative responsibility are the main *Sectors* in a *Department* to which the financial resources are allocated for a particular purpose. More specifically, the UPBs of expenditures and revenue are managed by the first level of direction and defined within the Sector range (see Figure 1 - gray area).

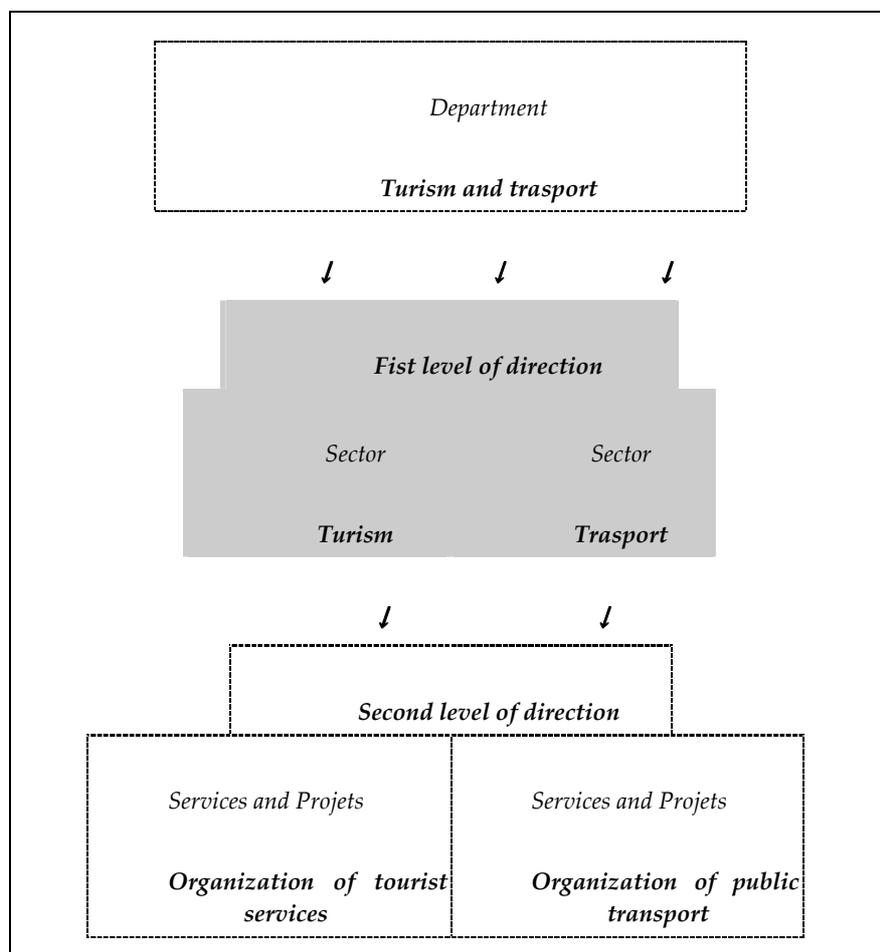


Figure 1 – The UPBs in the model of the organizational structure: the Department of Turism and Trasport

The regions that have defined UPBs by following this model are: Abruzzo, Calabria, Umbria and Piemonte.

This model is not coherent with the aim of said reform process and theoretical framework i.e. NPM and PG; in fact:

1. the organizational division, as units of administrative responsibility reflect the regional one; so, this articulation hardly show evidence of goals prefixed in the planning processes. In other terms, there is no relationship between the unit responsibility levels and the organizational structure.
2. the recognition of a single level of responsibility to the general management implies an unsatisfactory assessment of economic and financial sustainability of the programs. In fact, the second level of

⁴⁰ BORGONOVICANALETTI, 1998, p. 58; CARABBA, 1998, p. 209; CANALETTI, 1998, p. 219; D'ALESSIO, 1998, pp. 231-235

direction, which manages a set of *Services* and *Projects* defined by the first level of direction, is not evaluated.

3. this approach allows to understand “who manages the resources” (through the link between objectives and responsibilities) but not “what is done with the resources managed”;
4. Finally, there is no structural link between “UPBs” and the programs and the goals; then, this approach does not allow a proper vision of each program in-process.

The model of the institutional competences

In this model the regional organizational structure is adapted to the “map of the responsibility units”; this map is defined according to planning, programming and control systems (Brusa and Zamprogna, 2000).

Normally, the effectiveness of the accounting information system requires the coordination between programming processes, map of responsibility units, development of short and medium-term programs and annual budget.

The responsible units and positions are identified by a distribution of managerial and economic responsibilities within the organizational structure.

In these terms, it is necessary to:

- detect the presence of organizational structures undeclared;
- consider the existence of responsibility units to be declared;
- identify the responsible position for each unit;
- formulate the “map of responsibility units”;
- conform the map of responsibility units with the organizational structure.

The map of responsibility units identifies the responsibilities of all organizational units that are involved in the process of performance evaluation and goal setting.

Thus, the distribution of managerial and economic responsibilities appears coherent with the distribution of organizational responsibilities to each level of the structure (Guarini, 1999).

The objectives of strategic effectiveness and operational efficiency are assigned to managers who hold a positions of managerial authority (Brusa and Zamprogna, p. 103, 2000; Nicolò, p. 22, 2005).

The map of responsibility units is divided into two classes of units: a) first level manager, b) second level manager.

The managerial and economic responsibilities of each *Sector* in a *Department* are assigned to the first level of direction. Each *Sector general manager* assigns the *Services and Projects* responsibilities to the second level manager.

More specifically, each manager has several resources to manage, specific objectives to achieve.

In this model the responsibility units are the *Services* and *Projects* in the *Department* to which financial resources are attributed for a particular purpose. In this case, the UPBs of expenditures and revenue are managed by the second level of direction and defined within the *Services and Projects* range (see Figure 2 - gray area).

The objectives of UPBs concern the development of the programs approved by the Regional Council; each UPB may also refer to different responsibility units involved in the management of expenditures and revenue.

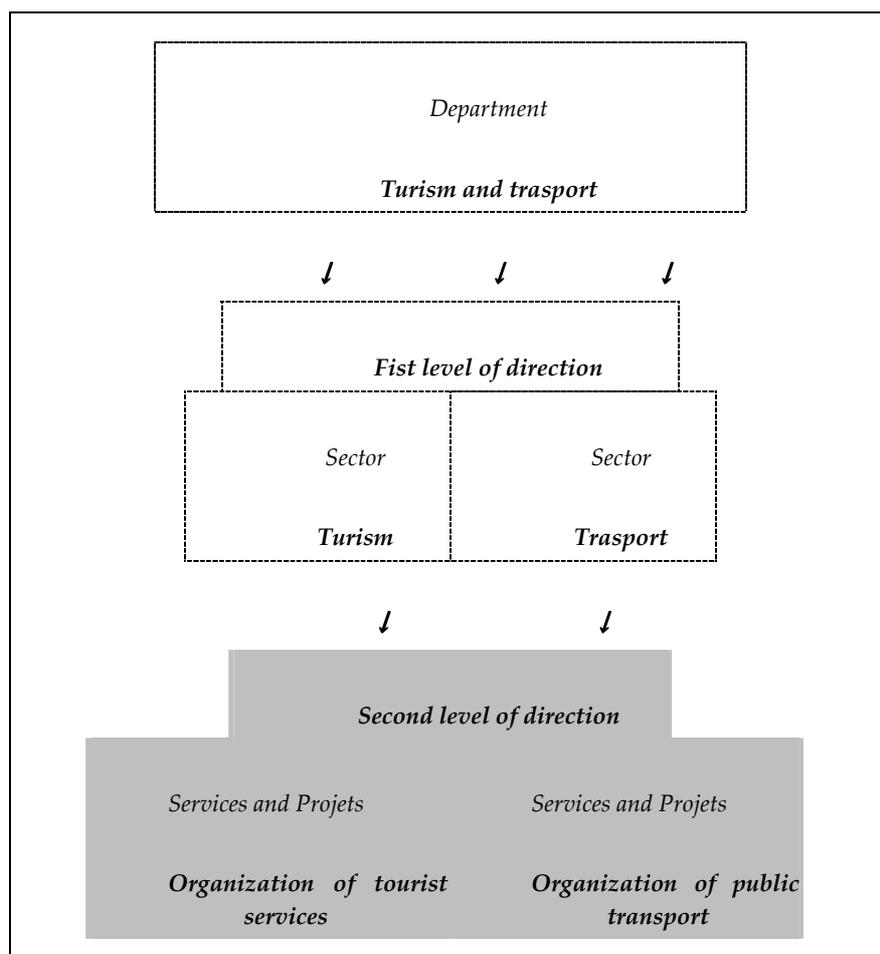


Figure 2 – The UPBs in the model of institutional competences: the Department of Tourism and Transport

In drafting the budget, the second level of the direction establishes the estimates of expenditures for the development of *Services and Projects*. These estimates shall be submitted to the first level approval.

The *Sector general managers* examine all proposals of each manager responsible for *Services and Projects*; in addition, they establish the estimates of expenditures for the development of programs of each *Sector* and their feasibility according to the estimate of revenue.

Finally, the first level managers draw up an overall estimate of expenditures and submit it to the Department Chief. The Department Chief verifies the consistency between programs and projects of each UPB to and objectives to be accomplished on the basis of policy arrangements.

The overall estimate of the expenditures and the revenue shall be submitted to the Regional Council for the final approval.

The regions that have defined the UPB by following this model are: Basilicata, Campania, Emilia Romagna, Lazio, Liguria, Lombardia, Marche, Molise, Puglia, Toscana and Veneto.

This model of the institutional competences is conforming to the theoretical framework i.e. NPM and PG; therefore:

1. this model allows to distinguish the political and strategic role performed by Executive and Regional Council from the managerial and administrative one performed by the first and second level managers.

2. it involves politician officers and first and second level managers to set out objectives and programs. In this way, a participatory approach (or bottom up) to draft different annual budget proposals is adopted by both parts. Each responsibility unit shows its needs and proposals; in this phase, the “top down” approach is neglected ⁴¹.
3. it qualifies the UPBs as a mean of connection between the budget authorization process for the achievement of objectives and programs to achieve and organizational units that carry them out.
4. Finally, it is interesting to consider that in 2008 this model was adopted for drafting the state budget ⁴²; this new budget structure highlights “who manages the resources” and “what is done with the resources managed”.

DISCUSSION AND CONCLUSIONS

The structure of the regional annual budget introduced by the Legislative Decree March 2000, No. 76 along with the decision-making process inspired by the principles of NPM and PG identify some managerial and accounting features.

Please find the key elements as listed below:

2. role of the UPBs in the regional budget system;
3. different criteria for defining UPBs starting from the theoretical framework (see item No 1).

A correct definition of the UPBs in the annual budget leads to an improvement of the accounting information in compliance with the change of informative needs of the stakeholders. It represents the key for:

- focusing the attention of the Regional Council on the priorities of regional policies;
- focusing the responsibility to manage the resources;
- establishing a link between planning, programming and control systems, annual budget and accounting rules;
- making a link between policy objectives and real resources, through the aggregation of chapters into homogeneous ranges of action (UPBs);
- assessing regional policies in terms of economic and financial viability;
- improving the quality of information related to the contents and the relationships between the activities pursued, the objectives achieved and the resources used.

This empirical review has been executed above all on the procedures for determining the UPB of revenues and expenditures within the annual budget.

In particular, it has identified two different models for the definition of the UPBs:

- the first model refers to the organizational structure: it chooses the same logic of aggregation adopted by the national law up to 2007 for the state budget;
- the second model refers to the institutional competences defined by the regional laws and the regional statutes.

The results of this analysis show that the model of the institutional competences seems more coherent within the reforms inspired by the principles of NPM and PG and better responds to the changing needs expressed by the stakeholders. As a matter of fact, the definition of UPBs highlights “who manages the resources” (on the basis of the link between objectives and responsibilities) and “what is done with the resources managed”.

⁴¹ In the “top down” approach the highest organs impose to the lower levels the annual estimates of expenditure and revenue.

⁴² Circolare del Ministero dell'Economia e delle Finanze n. 21 del 2007.

However, it may be also useful to detect of some factors and circumstances which complicate the correct implementation of models ⁴³.

These complex elements can be studied using the both perspectives used in this work: the political - institutional perspective and the management perspective (see item No. 1).

The former perspective is influenced by the federalism reform which involves the replacement of state transfers with regional taxes plus the abolition of equalization mechanisms. In this case the degree of variability of the financial resources available to the regions will increase.

It is difficult to quantify the amount of investments to do and the resources to use for medium-term programs. Moreover, especially in poorer regions, a lot of revenue is absorbed by the ordinary expenditures.

The ability to acquire the empowerment in the field of fiscal decentralization has an important impact on planning, programming and control functions; i.e. the managers have to assess the revenue and expenditures dynamics and may evaluate the economic and financial sustainability of programs to carry out ⁴⁴.

Following these considerations, the regions will focus their actions on legislative functions, planning, coordinating, and monitoring of the outcomes from several administration activities delegated to local governments.

In addition, some specific investment programs have been scaled down because of constraints imposed by the Italian Domestic Stability Pact. At the same time, the operating costs of the bureaucratic-administrative functions and of the institutional bodies have not been changed.

The weight of the operating costs compared to those required for funding programs has increased; therefore, the regional governments have been compelled to control the expenditures within programmed limits; even by underestimating the achievement of programs and objectives.

As to the latter perspective, the reforms introduced by NPM and PG and the new location of the intermediate levels of government in the social-economic context require a revision of the accounting information system.

In Italy the reform processes have produced some improvements related to the quality of information (but some more efforts shall be produced to streamline and simplify the conventional iter). The programming models in the Italian regions are extremely heterogeneous and the UPBs don't appear clearly defined because of the different regional organizational structures. "Accountability" is somehow compromised and the results of the activities of each region are not comparable.

Moreover, the redistribution of the responsibilities and the powers between the several levels of government suggests a revision of the organizational structure.

The PSE characterized by a structural over dimension and a very high complexity of the processes meet serious difficulties in:

- developing and coordinating all activities carried out by different organizational units;
- recognizing the empowerment and the autonomy of these organizational units.

In addition, there has been the failure of the link between the objectives to achieve and the drafting of the annual budget: the managers have often adopted a "bureaucratic" approach for drafting a budget, more oriented to the respect of the authorization process.

In these terms, there has been a scarce interest in the useful of the accounting tools in terms of governance and management of the resources.

⁴³ For example, the presence of inappropriate management practices may cause the failure of the adoption of a model in the public sector.

⁴⁴ In these terms, some regions, with less ability to impose their taxes, could be forced to drastically reduce the supply of essential services.

In some cases, the managers have formulated the general characteristics of the programs but they have not outlined specific and measurable objectives.

In general, some factors do not facilitate the proper implementation of the models are caused by a gap between the long-term of social and economic dynamics and the short-term of political vision.

Politicians often make short-term choices and consider the adoption of new management tools for planning and programming as formal rituals.

There is no heavy interest in the information accounting needs or in the assessment of strategic effectiveness and operational efficiency of the projects.

As a matter of fact to improve any information provided by the regional accounting systems, the role of legislation is important but not sufficient. In my opinion, following steps should be observed:

- change of administrative culture from a predominantly bureaucratic logic to a business logic;
- introduction of new organizational models to meet the users' needs;
- wording of legislative rules for planning, programming and budgeting system must be based on the availability of good accounting standards and good accounting and managerial skills;
- introduction of accrual based accounting, as an important component of the New Public (Financial) Management reform movement, in order to enhance efficiency, effectiveness and accountability.

Now, the introduction of the accrual accounting in the Italian regions (as well as other PSE) needs a gradual approach. This innovation should be realized bearing in mind their characteristics, rather different from those of private organizations.

In addition, the traditional financial accounting seems still useful if you consider the peculiarities of a management within the Regions. The managers are charged to coordinate, plan and monitor the results of administrative actions nowadays delegated to local governments.

A period of transition by adopting a "dual based" accounting system seems to be appropriate:

- *the cash-based accounting system* satisfies the legally adopted budget ;
- *the accrual-based accounting system* could fulfill the function of external and internal information, it should allow to achieve efficiency and effectiveness and proper management of assets. The adoption of this system should facilitate the process of national and international accounting harmonization.

This dual system is satisfactorily applied to PSE, as the Italian regions that are involved in the transfer of expenditures responsibilities and revenue assignments to local governments. For example the European Union and the Swiss Confederation have used a dual system based on the coexistence of traditional cash accounting for the legally adopted budget and the accrual accounting based on the International Public Sector Accounting Standards (IPSASs).

A set of principles developed by a technical unit shall be required in order to:

- regulate the accounting system of public administration;
- harmonize the criteria and the logic in a budget drafting.

However, the situation of our country is not aligned with the international trend as to the adoption of the accrual accounting and the accounting standards issued by a standard setter. To better explain:

1. The accounting system of the Italian PSE is anchored to the traditional accounting (largely cash or commitment based). In particular, some budget reforms in the Italian regions have been introduced, nevertheless, the accounting information system is still linked to traditional accounting introduced for the legally adopted budget only. Now, there is no reference to the

accrual accounting, and, the accounting system produces information concerning the financial aspects of the operations only.

Several regional laws concerning the accounting system have been introduced thanks to the degree of autonomy granted by the Legislatures; but autonomy exercised by single regions not always facilitates the path of harmonization in the structure of regional budget;

2. The adoption of the accounting standards by the Italian PSE is characterized by the presence of "Ragioneria generale dello Stato" (RGS) and "Osservatorio sulla finanza e sulla contabilità degli enti locali" as the accounting standard setters for the state and the local governments, but, there is no standard setter which regulates the regional accounting system.

Furthermore, these Italian standard setters are appointed by the Minister; whereas a technical unit charged to issue accounting matter should be established.

For example, the "Organismo Italiano di Contabilità", as the Italian accounting standard setter in the private sector, could be entrusted to harmonize the accounting systems of different PSE by ensuring the participation of all stakeholders such as the "Ragioneria generale dello Stato" and the "Osservatorio sulla finanza e sulla contabilità degli enti locali". By this way it is ensured the protect of the specific features of several Public Sector Entities.

Finally, the adoption of the IPSASs formulated by the International Public Sector Accounting Standard Board (IPSASB) might facilitate the progress towards accounting harmonization and accrual-based accounting systems and suitable for growing information needs arising from the latest reform process.

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LOCAL IDENTITY AND CREATIVE CAPITAL IN TOURISM: SOME EXAMPLES IN ITALY

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Purpose – The purpose of this paper is to analyze the increasing importance of creativity in the field of tourism, starting from the hypothesis that creativity is able to strengthen the local identity of a destination. Since in literature the analysis of creative capital in tourism is recent and not yet developed, the paper wants to systematize and give additional value to current studies on the subject, identifying the forms of creative experience, the main assets and the contexts in which is possible to develop the tourism based on the creativity.

Design/methodology/approach - Methodologically, the analysis was conducted from a theoretical point of view supported by documentary analysis. In the first part, the paper analyzes the interplay between the local identity and the creative capital in tourism; subsequently it examines the transition from cultural tourism to new forms of creative experience: creative spectacles, creative spaces, creative tourism.

On the basis of features and contexts emerged from the theoretical analysis, the paper examines some examples of creative supplies in Italy analyzing:

- The ways of tourists participation (active and passive), their involvement and the developed skills;
- The interaction between creativity and local identity;
- The different contexts where creativity develops (urban and rural).

Findings – The analysis developed in the paper highlights the importance of creativity in the field of tourism and culture and confirms the hypothesis that creativity is able to strengthen the local identity of a destination. The findings of the theoretical analysis and of the presented examples underline that supply systems based on the creative capital develop synergies between visitors, local identity and creativity. Creative supply systems can also contrast the phenomenon of serial reproduction of culture and stimulate a genuine and direct link between visitors and local identity, with the aim of making them *co-producers* of their travel experiences.

Originality/Value – The paper contributes to broaden the literature and knowledge on creativity in tourism, identifying its forms, features and development contexts.

A next step from this explanatory research could be the development of a new conceptualization which might be later empirically tested.

Paper type: General Review

Key words: Local identity, Creative capital, Creative products in tourism, Italian examples

INTRODUCTION

Tourism based on creativity is an evolution and specialization of traditional cultural tourism and can be defined as “travel directed towards an engaged and authentic experience, with participative learning in the arts, heritage, or special character of a place. It provides a connection with those who reside in this place and create this living culture^[45]”.

In literature the analysis of creative capital in tourism is recent and not yet developed. For this reason, the purpose of this paper is to analyze the increasing importance of creativity in the field of tourism, and to examine how creativity is able to strengthen the local identity of a destination. The paper wants to systematize and give additional value to current studies on the subject, identifying the forms of creative experience, the main assets and the contexts in which is possible to develop the tourism based on the creativity.

Methodologically, the analysis was conducted from a theoretical point of view supported by documentary analysis. In the first part, the paper analyzes the interplay between local identity and creative capital in tourism, and the transition from cultural tourism to new forms of creative experience: creative spectacles, creative spaces, creative tourism. The two main features emerged from the analysis are:

- a) participation in the tourist’s experience of visit;

^[45] The concept is analyzed in works of Greg Richards and Crispin Raymond, and is also in the UNESCO definition of 2006.

- b) the interaction between visitors, the cultural resources of the destination and the local community. The contexts in which creativity as a source of competitive advantage can develop can be both rural and urban.

The paper examines some examples of creative supplies in Italy analyzing:

- The ways of tourists participation (active and passive) and involvement;
- The interaction between tourists, residents and local cultural resources;
- The different contexts where creativity develops.

The studied examples highlights that creativity can be an adequate tool to diversify the destination and exploit the local identity of an area. Supply systems based on the creative capital can also contrast the phenomenon of serial reproduction of culture and stimulate a genuine and direct link between visitors and local identity, with the aim of making them *co-producers* of their travel experiences.

THE INTERPLAY BETWEEN LOCAL IDENTITY AND TOURISM BASED ON CREATIVITY

Creativity in tourism concerns “learning a skill on holiday that is part of the culture of the country or community being visited” (Richards and Crispin, 2008). It’s a tourism that “gives the opportunity to develop the creative potential through active participation in experiences that are characteristic of the destination: the conscious and documented visit of the places and architectural treasures; the discovery of minor routes; the cultural immersion” (Martini, 2005).

In the last years it’s possible to highlight the passage from a cultural tourism based on a *Site&Monument approach* to an *Experience approach*, related to the experiential consumption: visitors want to satisfy their self-development skills need.

The tourism experience is analyzed through the *Economy Experience*^[46]. The economy experience starts from the notion that increased competition forces producers to differentiate products and services, turning them into experiences (Amin and Thrift, 2002, Pine and Gilmore, 2000). Similarly, destinations modify their supply systems to create experiences that can satisfy an increasingly aware cultural demand. Experiences are based on personal sensibility and “... provide sensory, emotional, cognitive, behavioural and social values that replace the functional skills” (Schmitt, 1999).

Cultural tourism is therefore moving towards experiential tourism, which takes the connotation of creative tourism when is present the active participation and involvement by immersion / absorption of the visitor.

Tourism based on creativity faces everyone’s personal need (Figure 1).

^[46] Studies by: Carbone L.P. e Haeckel S.H., “Engineering customer experience”, *Marketing Management*, vol. 3, n. 3, 1994, pp. 9-19; Ferrari S. & Resciniti R. (2007), “La gestione degli eventi turistico-culturali nella prospettiva esperienziale”, *Annali della Facoltà di Economia di Benevento*, n. 12, pp. 257-284; Resciniti R. (2004), *Il marketing orientato all’esperienza L’intrattenimento nella relazione con il consumatore*, Napoli, ESI.

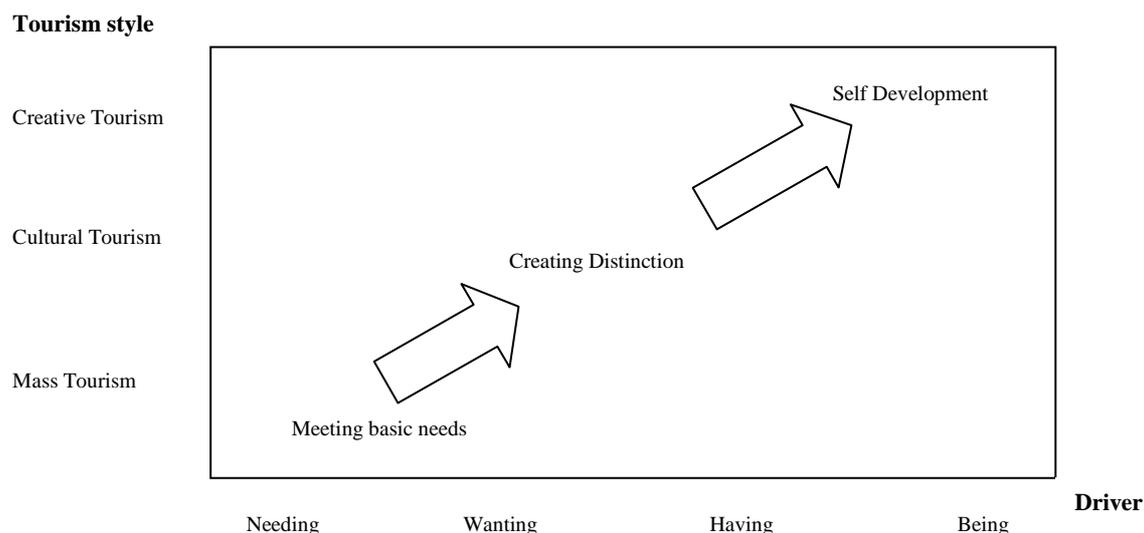


Figure 1 - Development of tourism and its drivers over time

In the past, the mass tourism used to satisfy basic needs, conferring a specific status, and travels could be compared to the purchase of luxury or exclusive goods. Later on, tourism was mainly based on cultural aspects; the tourist became more interested in the local art and cultural resources; in this phase, the destinations have to be able to make unique and distinctive supply systems to reach a competitive advantage. Nowadays, the cultural tourists don't get satisfaction from the observation of the sites or the consumption of similar offers anywhere in the world; they want the destinations pay major attention on what they *are or are becoming*, rather than on what they *have*: tourism is not more related to the consumption of goods and services, but to the consumption of active and dynamic *experiences*.

Studies by Richards and Wilson^[47], Binkhorst^[48], Prentice^[49] and Raymond^[50], have analyzed that creativity can strengthen the cultural identity of the destinations, reducing the risk of serial reproduction and defining a deeper relationship between tourists and local community.

In this perspective, creativity allows the territorial supply systems to achieve competitive advantages to prevent phenomenon concerning (Russo, 2008):

- Cultural homogenization: many destinations have developed artificial attractions not representative of local identity and therefore not really attractive (Richards, 2001). The main risk relating to the serial reproduction is to make the destinations not distinctive and not competitive;
- Strong competition between destinations, which has led to lower costs and prices, rather than to improve the quality of the supply system.

Territories *to maintain, develop and use their creativity as a distinctive instrument*, use different strategies of differentiation (Richards and Wilson, 2006):

- *Iconic structures*: construction of important structures which often aim to become a symbolic shorthand for the territory identity. Iconic structures may therefore begin to lose their distinctive quality, because too many destinations are using this strategy to diversify their own identity, and

^[47] Richards G., Wilson J. (2006), "Developing creativity in tourist experiences: A solution to the serial reproduction of culture?", *Tourism Management*, n.27, pp. 1209-1223.

^[48] Binkhorst, E (2005), "Creativity in the experience economy, towards the co-creation tourism experience", *ATLAS annual conference*, Barcelona.

^[49] Prentice R. (2003), "Conceptualising Cultural Tourism", *Conference on Developing Cultural Tourism University of Nottingham*, 16 December.

^[50] Raymond C. (2003), "Case study – creative tourism New Zealand", published at www.fuel4arts.com

because the signature architects may be better at creating a distinctive image for themselves rather than the places they build for, without consider the local peculiarities.

- *Mega-events*: many cities organize mega-events thanks to their lower cost compared to building physical infrastructures, such as a new museum. The mega-events can also be modified and improved every year. The more known mega-events in the cities are two: The *White Night* and the *Capital of Culture*^[51]. Even this strategy is beginning to fail, since it is used by many cities in competition between them: rather than focusing on a single mega-event, destinations should develop more organic policies and distributed throughout the year, with a timetable of events.
- *Thematisation*: Some territories have tried to make distinctive themselves developing a specific cultural theme, strictly linked to the local heritage.
- *Heritage mining*: Many destinations have attempted to re-develop themselves through the enhancement of their cultural heritage, such as museums or monuments.

The last two strategies are most successful because strongly associated with the distinctive features of each destination; this means that these strategies are not easily reproducible elsewhere.

The growing interest in all forms of culture has led many areas to consider cultural tourism as an important advantage, but those who managed to establish a strong and lasting relationships between tourism and creative sector have a greater chance of success (Gemmiti, 2007). Through creativity, destinations reshape its image and attract tourist flows, financial and human capital (Hall, 2000).

FEATURES AND CONTEXTS OF TOURISM FORMS BASED ON THE CREATIVE CAPITAL

One of the most important features of the tourism forms based on the creative capital is the tourists' participation in the process of creating and enjoying tourism experiences. According to the model developed by Pine and Gilmore about the *Experience Economy* (Figure 2), visitors participate in the tourism experiences in two ways: active and passive.

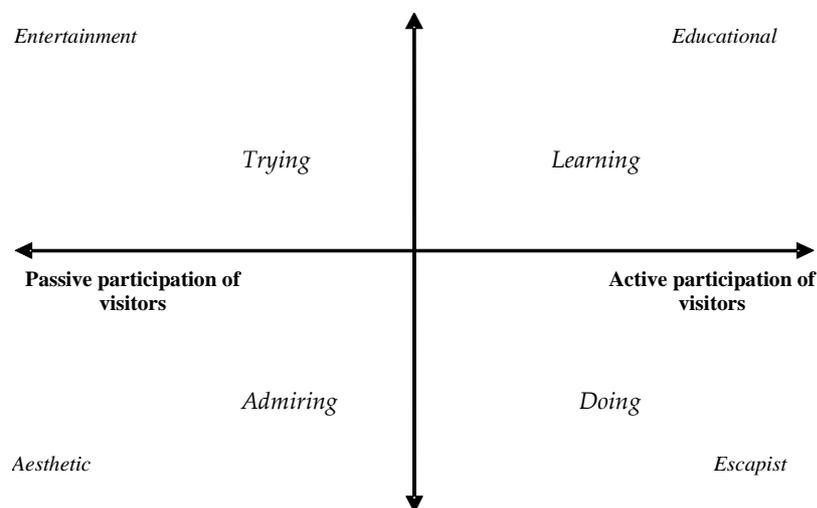


Figure 2 - The experience realms

^[51] During the *White Night* the tourists can visit museums and participate in cultural life of the city all the night, and is performed in Paris, Berlino, Amsterdam, Montreal, Roma, Napoli, Bruxelles, Madrid, Riga, and a lot of other cities in the world. The *European Capital of Culture* is a recognition that allows the European city that has won the title to make known to the world its cultural heritage; Cusimano G., Giannone M. (2007), *op. cit.*

There is *passive participation* when the tourists do not influence the destination's culture through an active involvement, but they simply visit museums, galleries and monuments, or attend at artistic and cultural events. Creativity therefore becomes a fundamental instrument to differentiate the local experiences the visitors don't produce directly. Important examples of passive activities are the *creative spectacles* realized by individuals or creative groups that develop creative activities in the destination. The tourists observe the *creative spectacles* without interfering in the shows. The *creative spectacles* are characteristic of many cultural tourism destinations, and because of their large diffusion, they are losing their competitive strength: Festivals often compete directly with one another and therefore have to introduce innovative elements in order to hold the audience attention.

Creative spaces are another example of creative experience whose tourist's participation is not required; for example, many towns are developing creative areas populated by creative artists to attract visitors (often informally at first) thanks to the lively atmosphere that such areas often exude. In the *creative spaces* the material and the symbolic elements generally intersect; they are spaces multifunctional and that can be flexible to any particular representation. This implies adaptability to different needs (resident, visitor). *Creative spaces* can be also designed to house a core of permanent residents, originating formal creative clusters important not only in the local economy, but also as centres of attraction for the endogenous and creative class as a resource for the development of a creative image for tourists.

The *creative spectacles and spaces* are based on the creative capital the destination can offer, and it is interesting to consider that this creativity is increasingly based on intangible resources - local traditions, culture and territorial identity - that are fundamental for a competitive cultural system. The intangible culture, however, presents some problems in terms of protection; the intellectual property of intangible resources must be protected to establish a strong, unique and distinctive connection in visitors' minds between the manifestations of creativity and the single destination.

In addition to the creation of *creative spectacles and spaces*, the destinations are implementing supply systems in which the tourists must participate actively. These new experiences are based on the development of skills of tourists, who are actively involved and acquire new competences (Richards, 1996). Tourists become *co-producers* of the experiences; the supply systems have to allow visitors to develop their imagination and creativity and create personalized experiences (Pine and Gilmore, 2000). The areas of the active participation are that of *learning and doing* (Figure 3). The participation of tourists to the implementation of creative activities can take place through participation in courses and workshops that teach skills closely linked to the culture of the destination. This type of experiences may also include the participation in *creative spectacles* and the use of *creative spaces*, where the tourists make the spectacles and realize the activities in the spaces, becoming co-producers of the supply system.

Table 1 shows the basic elements and the differences between the traditional cultural tourism and the forms of creative tourism. Traditional cultural tourism is especially linked to the past heritage, while the creative production is oriented to the future and new cultural trends.

	<i>Primary time focus</i>	<i>Primary cultural focus</i>	<i>Primary consumption focus</i>
<i>Cultural tourism</i>	<i>Past and present</i>	<i>High culture, popular culture</i>	<i>Product, process</i>
<i>Creative spectacles</i>	<i>Present</i>	<i>Arts, performance</i>	<i>Performance</i>
<i>Creative spaces</i>	<i>Present and future</i>	<i>Arts, architecture, design</i>	<i>Atmosphere</i>
<i>Creative tourism</i>	<i>Past, present, future</i>	<i>Creative process</i>	<i>Experience, co-makership</i>

Table 1 - The relationships between cultural tourism and creative tourism

A second feature of the supply systems based on creative capital is the interaction among visitors, the cultural resources and the local community.

The visitor wants to be involved in experiences related to the cultural aspects of the sites he visits; wants to enrich his culture acquiring skills, capabilities and information about historical traditions, habits of life and cultural aspects of the destination (Richards and Wilson, 2007): the tourist is no longer a simple consumer of goods and services, but he is engaged in a process of learning, observation and experimentation. The emphasis on intangible resources reduces the production costs and increases the flexibility: destinations are focusing their investments on the local creative capital rather than on making rigid structures, encouraging the creation of *creative spectacles and spaces* that allow the tourist to interact with the specific features. This interaction causes both an increased participation of residents - they become producers of tourist experience - and an increase of creative artists who move in the territory permanently or temporarily. A virtuous circle of benefit for the destination is the result.

Tourists who want to live cultural experiences, want also to have a direct contact with those who live on the site: The resident becomes a vital source of expertises.

Residents, through their skills, teach tourists the local culture, teaching how to cook typical products, to use local techniques, or to build instruments related to the history of the territory. The interaction between residents and tourists not only brings benefits to the visitors, but also allows the community to get closer to different cultures and habits, creating an exchange that can enriches either.

The introduction of creativity in tourism changes the role of local people: the residents are no longer considered as mere sellers of handicraft items, but they become teachers of distinctive skills and abilities, allowing to build a relationship based on exchange of knowledge rather than on economic one.

The growing role of creativity and intangible culture in tourism presents a new challenge for destinations, as the territories have to manage and exploit resources that were previously not considered: to be successful the destinations must invest more in the creative capital of the community (Richards and Wilson, 2006).

Finally, an analysis of the contexts in which creativity can develop as a source of competitive advantage, has highlighted the urban and rural areas. The idea of *adversity* (Richards and Wilson, 2007) joins these territories based on creative capital: to attract creative talent is the starting point for the revitalization of an area and a point of strength for its competitive advantage (Sacco, Tavano Blessi and Vergani, 2006).

Actually, the use of creative factors is being developed especially in the supply systems of rural or remote areas, where the possibility of boosting the traditional cultural tourism is more limited. The rural areas are able to compete with the *urban environment* (Richards and Wilson, 2007) because they are preferred destinations for a growing number of creative people who want to "escape" from the cities. It has allowed the birth of *creative rural clusters*, in which have been made rural museums, rural craft demonstrations

workshops and master classes^[52] focused on the development of creative experiences for tourists. The aim is to enhance the cultural and artistic assets of the rural and peripheral areas.

Creativity appears an important critical factor as key for success also in the cities, and the most global interesting centres - Barcelona, New York, Milan - are developing strategic actions to encourage new creativity and to attract artists and creative people.

The term “creative cities” refers to the cities with a high level of creativity, individual, institutional and widespread which are able to use their resources as tools for competition. Besides financial cities, the so-called “buffer areas” are growing increasingly usually located in peri-urban areas but linked to the city centres, which develop and spread the creative class^[53]. These areas are (Sacco, Tavano Blessi and Vergani, 2006):

- Promoting new ideas and economics related to creativity and innovation especially in the cultural field;
- Areas of experimentation and economic, cultural and social contamination, that stimulates the entire urban system;
- Spaces where the process of cultural diversity among residents leads to renewal and construction of social benefit to the entire urban body.

These urban areas are characterized by a high concentration of creative jobs - artists, musicians, architects, researchers etc.. The creative cities attract a virtuous circle where the *creative class* is attracted by the cities on the basis of the infrastructure they offer, bringing with them economic development and innovation (Florida, 2003).

Even the cities, therefore, are turning into real *creative workshops* where an increasing number of products and cultural activities are developing. Creative spaces are often the result of contamination between traditions and cultures of different populations who coexist on the same territory; these areas, which were born almost by chance, attract more and more tourists interested in a direct access to culture, and they help to draw a new geography of the city (Cusimano and Giannone, 2007).

SOME EXAMPLES OF SUPPLY SYSTEMS BASED ON CREATIVITY

In order to get a competitive advantage through the development and application of creativity it is necessary to reshape and reorganize the process by offering new forms of visitors involvement and participation. Based on the theoretical considerations developed in the preceding paragraph are analyzed here some examples of tourism based on creative capital.

Some initiatives in Table 2 are shown some creative products, with the description of activities offered, the promoter (public or private), methods of co-production of experiences of the website. As shown in the table there are many proposals: these forms of cultural tourism based on the creativity and the enjoyment of experiences, want to involve a more complete participation of visitors, as stated in § 2, and at the same time, they encourage new skills and new capabilities.

^[52] *Ibidem*, p. 28.

^[53] *In the peripheral areas is becoming increasingly important, especially in economic terms, a part of the population called creative class. This definition is because the production of added value is through the use of creativity: through the creative advantage they have, the members of the creative class get more significant results than the other segments of the population. The creative class consists of people working in different fields - science, engineering, computer, education, finance, design, advertising, arts and entertainment - with basic characteristics in common: the value of creativity, talent, distinctiveness. This class is highly educated and is increasingly emerging: its power and its importance is growing as the creativity is recognized as fundamental for the social development. Source: Florida R. (2003), *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life*, Basic Books, U.S.A.*

N.	Name	Place	Description	Experiences Co-Production		Promoter	Web site
				Yes	NO		
	<i>Creativa</i>	<i>Marina di Massa (MS) – Toscana</i>	<i>Summer School of arts, crafts and trades for women: for those who have already chosen the Apuana coast for their holidays but also for those who are usual residents</i>	<i>Sculpture, Action Painting</i>	----	Public organization <i>Provincia di Massa Carrara</i>	http://portale.provincia.ms.it
	<i>Giardini del Casoncello</i>	<i>Loiano (BO) Emilia Romagna</i>	<i>Journey in the garden full of plants and wild flowers: in a hectare more than a thousand species, which freely associate in a “harmonious disorder”, tend to create a suggestive atmosphere</i>	----	X	Public organization <i>Provincia di Bologna</i>	http://www.comune.loiano.bologna.it
	<i>I Moresani</i>	<i>Casal Velino (SA) Campania</i>	<i>Strolling along the sea, walking up to Mount Ruch, there are many interesting things to visit. We change found objects into charming handicraft On request you can take part at the preparation of bread and a guided tour will show you the local mill to assist in processing various types of grain into flour.</i>	<i>Cooking</i>	----	Private countryhouse <i>Farm holiday</i>	http://www.agriturismoimoresani.com
	<i>La Meridiana</i>	<i>Certaldo (FI) Toscana</i>	<i>The annual program is based on a number of initiatives. The most important are: Courses, Clay Groups, Expanding Opportunities, Seminars</i>	<i>Ceramics</i>	----	Private company <i>Associazione culturale</i>	http://www.lameridiana.fi.it/italiano/index.asp

	Modicarte	Modica (RG) Sicilia	Courses in the graphic of Writers, the recovery of one of the most significant parts of the Sicilian tradition : working with clay	Graphics Ceramics Engraving	----	Private countryhouse Farm holiday	http://www.modicarte.it
	Notte europea della civetta	Pesaro Marche	Teaching activities with 6 years children. Through tales , educational panels and workshops you will discover the uniqueness of the nocturnal birds: prey and owl. - Meeting for adults with interventions related to the ecology of nocturnal birds the ability to hunt at night and common places on these animals. Easy hike in search of nocturnal birds through the park playback, and tools to catch owls.	Bird-Watching	----	Public organization Natural Park of Monte San Bartolo	http://www.parks.it/eventi/dettaglio.php?id=13625
	Pandora	Sorano (GR) Toscana	The school has been supporting educational activities since 1986 for applied arts. The workshops are intensive and are based on pupils' experimentation and practice of techniques	Ceramics	----	Private countryhouse Farm holiday	http://www.artandcraft.org/
	Riconoscere le Erbe di campo	Gabicce Mare (PU) Marche	Course to learn to recognize the "grass of the field," common and delicious plants, but still little known to new generations. This is part of the natural scientific initiative and the preservation of local culinary traditions, and allow participants to appreciate the countryside and its fruits	----	X	Public organization Natural Park of Monte San Bartolo	http://www.parks.it/parco.monte.san.bartolo/nov.html

	T.C. Lucano	Maratea (PT) Basilicata	Holidays in Maratea are designed for all those who want to find themselves and their creativity through the expressive forms, inspired by the beauty of Maratea	photograph	----	Private countryhouse Farm holiday	http://www.vacanzecreative.it/
0	Strada della Creatività	Manciano e Castiglion fiorentino Toscana	Tour to spread the local art	----	X	Public organization Municipality	http://www.andrearoggi.it/stradacr.htm
1	Museums Quartier	Vienna (EE) Austria	Strange and unusual visitors prefer those spaces which are becoming more and more attractive under the slogan "See and be seen", but mostly full of ... pleasure.	----	X	Public organization Municipality	http://www.wien.info/article.asp?ID=Article=4112
2	Leggere strutture Factory	Bologna Emilia Romagna	Centre Production for cultural projects, events, shows and cultural performances	----	X	Public organization Centro di ricerca e progettazione culturale	www.leggerestrukture.it
3	Progetto M9	Venezia Veneto	Designed to stimulate critical visitors, and to perform the social, cultural, economic and political history of XX century Venice	----	X	Public organization Fondazione di Venezia	www.fondazionedivenezia.org

Tab 2 - Forms of tourism based on creative capital

In the following Table 3 are shown, for each example, the visitors participation level (active and passive), and the sensory skills that the activity develops.

<i>Name</i>	<i>Participation</i>	<i>Incentives (Senses and inner)</i>	<i>Development Skills</i>
<i>Creativa</i>	<i>Active</i>	<i>n.d.</i>	<i>Construction of Objects</i>
<i>Giardini del Casoncello</i>	<i>Passive</i>	<i>Excursions</i>	<i>Try</i>
<i>I Moresani</i>	<i>Active</i>	<i>Metamorphosis of Objects</i>	<i>Cooking Activities</i>
<i>La Meridiana</i>	<i>Active</i>	<i>n.d.</i>	<i>Construction of Objects</i>
<i>Modicarte</i>	<i>Active</i>	<i>n.d.</i>	<i>Construction of Objects</i>
<i>Notte europea della civetta</i>	<i>Active</i>	<i>Excursions</i>	<i>Research and recognize the Raptors</i>
<i>Pandora</i>	<i>Active</i>	<i>n.d.</i>	<i>Photography and painting techniques</i>
<i>Riconoscere le Erbe di campo</i>	<i>Active</i>	<i>Route Olfactory and Taste</i>	<i>Distinguish Herbs</i>
<i>T.C. Lucano</i>	<i>Passive</i>	<i>Excursions</i>	<i>Look</i>
<i>Strada della Creatività</i>	<i>Passive</i>	<i>Atelier visit</i>	<i>Look</i>
<i>Museums Quartier</i>	<i>Passive</i>	<i>Visits</i>	<i>Look</i>
<i>Leggere strutture Factory</i>	<i>Passive</i>	<i>Cultural Events</i>	<i>Taste</i>
<i>Progetto M9</i>	<i>Passive</i>	<i>Social Transformations</i>	<i>Try</i>

Table 3 - Participation, incentives, skills development

Some of the selected examples tend to stimulate the active participation of tourists giving them the opportunity to acquire knowledge and skills (culinary activities, painting techniques and construction of objects), or they offer evasion experiences where visitors perform directly (e.g. to recognize flora and local fauna). Other examples are in the *creative spectacles and spaces* categories, that request passive participation of tourists (Richards, 1996); they have the opportunity to experience live entertainment rather than mere aesthetic experiences. The tourists can *admire* or *feel experience* based on the identity and culture of the area.

The new challenges offered by the growing role of creativity and intangible resources are accepted from the destinations, which are starting to structure the supply systems with creative and cultural courses to encourage the interaction of the visitors (see § 2). In particular, new forms of interaction are developed related with both the cultural resources of the place and the local community. The creative class becomes the primary source of new skills and abilities.

<i>Name</i>	<i>Interplay between visitors and local identity</i>		<i>Context</i>	
	<i>Cultural aspects linked to the territory</i>	<i>Residents and local resources involvement</i>	<i>RURAL</i>	<i>URBAN</i>
<i>Creativa</i>	<i>Items related to local production</i>	YES	X	

<i>Giardini del Casoncello</i>	<i>Local Flora</i>	NO	X	
<i>I Moresani</i>	<i>Typical Products</i>	YES	X	
<i>La Meridiana</i>	<i>Local Ceramics</i>	YES	X	
<i>Modicarte</i>	<i>Clay Processing</i>	YES	X	
<i>Notte europea della civetta</i>	<i>Local Fauna</i>	YES		X
<i>Pandora</i>	<i>Etrusca Technique</i>	YES	X	
<i>Riconoscere le Erbe di campo</i>	<i>Local culinary tradition</i>	NO	X	
<i>T.C. Lucano</i>	<i>Local Artists</i>	YES		X
<i>Strada della Creatività</i>	<i>Local Artists</i>	YES	X	
<i>Museums Quartier</i>	<i>Local Architecture</i>	YES		X
<i>Leggere strutture Factory</i>	<i>Local culture</i>	YES		X
<i>Progetto M9</i>	<i>Local history</i>	NO		X

Table 4 - Interplay between visitors and local contexts

As seen in the Table 4, almost all the selected examples provide a full involvement of residents and the local creative class. The offers are strongly affected by issues of identity and cultural traditions and local production (local products, local flora and artistic traditions are typical). Furthermore, as pointed out in § 2, creativity can be developed in a rural or urban context. Most initiatives are related with rural activities and the urban activities - for example, Venice, Bologna and Maratea – are generally laboratories (M9 Project Read and structures Factory) related with cultural traditions and local history.

CONCLUSIONS

The analysis developed in the paper highlight the importance of creativity in the field of tourism and culture, and confirm the hypothesis that creativity is able to strengthen the local identity of a destination. In the examples analyzed, in fact, is evident a strong coherence between the cultural supplies and the local identity and traditions.

Tourism based on creative capital encourages the interaction between visitors and the local identity of a destination, and promote an involvement with the local community and the distinctive local resources. Creativity is also a very useful tool for developing innovative products, supporting the cultural economy and facing the risk of serial reproduction of culture, and helps to satisfy the tourists who want to live more memorable and genuine experiences.

From the perspective of demand, through the creative tourism “tourists develop their creative potential, and approach to the local community, participating in seminars and workshops related to the local culture^[54]”. On the supply side, creative tourism gives visibility to local assets, making them more interesting and accessible. It can also determine several advantages compared to the traditional cultural tourism (Richards and Wilson, 2006):

- The creative resources are scarce, because creativity is a characteristic possessed by few people. For this reason, the creativity has a very high value added;

^[54] The paper is available at www.creativetourism.co.nz.

- Creativity allows the destinations to create new tourist offers and gain quickly a competitive advantage, as it does not require any special additional infrastructure;
- Creative resources are generally more sustainable than cultural products: while, in fact, the tangible cultural resources may change over time and deteriorate, creativity is likely to be renewed indefinitely.

In tourism based on creativity, then, there is no need to have a significant tangible heritage, or to spend a lot of capital to maintain structures that deteriorate over time; tourists are more satisfied because they are involved in the interaction with the typical local resources. Creativity is an appropriate tool to face the growing competition in the tourist market; the spread of creative tourism is visible in many Italian and European destinations and is developing in several forms: The most promising for the future are the fashion, architecture, design and dance. Intangible culture becomes increasingly attractive (gastronomy, crafts, folklore), and the interest in the smaller towns, villages and local heritage of a territory is increasing.

In the creative experiences, therefore, the success of the supply system does not only depend on external factors but also, and above all, on the ability of management to stimulate the visitors creativity. For this reason, the territories should be more involved in the creative process, not only in terms of product innovation, but also to recognize, stimulate and maintain over time the creative potential.

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TETRA PAK ITALY: KEY FACTORS OF SUCCESS AND POSITIVE EFFECTS OF INGREDIENT BRANDING

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Purpose – The aim of this article is to understand the key factors of success and advantages that Tetra Pak Italy reached thanks to Ingredient Branding (IB) implementation.

Design/Approach – In order to reach the goal of the paper, direct and indirect data were analysed. The primary data are the outcome of an in-deep interview with the Tetra Pak Italy marketing director, while the secondary data comes out from reports made available by the company. The reports present results – codified in tables and figures - of the co-branding campaign.

Findings – The secondary data clearly showed that the IB strategy was successful. The use of primary data allows to identify the existence of several key factors of success of Tetra Pak Italy implementation of IB.

Value of Paper - This paper is a step in a stream of research that analyses IB in the supplier's perspective.

Practical implications - The contribution of the paper should not, however, be overstated. Actually, the analysis presents an initial foray into the realm of IB.

Key words: Tetra Pak Italy, Ingredient Branding, business-to-business, co-marketing

Paper type: Case study

INTRODUCTION

Branding theory has developed mainly in the context of consumer products; yet, most economies are characterised by a preponderance of companies selling B2B or industrial products (Donaldson, 1996; Mudambi, Doyle and Wong, 1997; Mudambi, 2002). Understanding how branding works in industrial markets is consequently a priority (Shipley and Howard, 1993; Rozin and Magnusson, 2003).

The aim of this article is to understand the key factors of success and advantages that Tetra Pak Italy reached thanks to Ingredient Branding (IB) implementation.

In order to allow the rider to understand the Tetra Pak Italy allied campaign some of the distinctive features of ingredient branding (IB) are discussed.

INGREDIENT BRANDING: AN OVERVIEW

IB is a particular kind of promotional alliance (Norris, 1992; Desai and Keller, 2002). A promotional alliance involves a formal partnership characterized by the association of two or more brands and their relative communication (Cegarra and Michel, 2000; Levin and Levin, 2000; Kumar, 2005). The alliance known as co-branding is a marketing strategy for cooperative marketing or, in other words, co-marketing) (Kramer, 1995; Shawn, 2000). Included among the different promotional alliances, IB plays a key role (Figure 1).

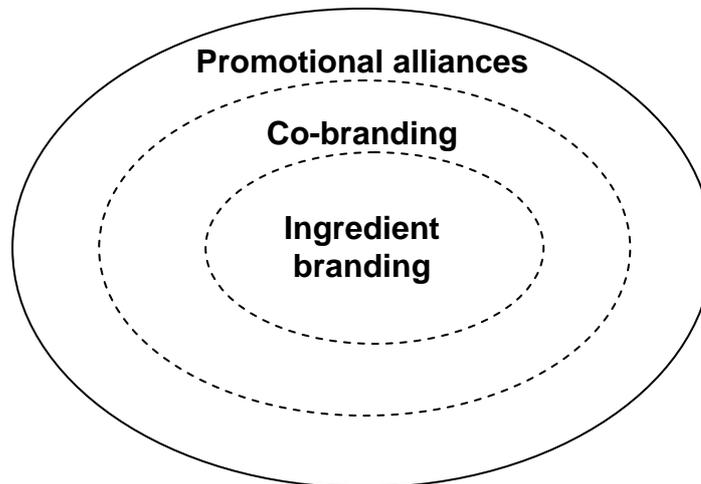


Figure 1: From promotional alliances to ingredient branding (source: authors)

IB is an accepted marketing device (Norris, 1992; Dover, 1997) that has only recently started to emerge (Kotler and Keller, 2006; Kotler and Pfoertsch, 2006). In today's global economy, companies have to establish and maintain competitive advantage, create commercial success in the market and provide criteria to differentiate them from their competitors (Trinquecoste, 1999; Bartlett *et al.*, 2004). Until recently, the focus was on tangible, but has now shifted toward intangible resources, such as brands (Carpenter *et al.*, 1994; Kapferer, 2001; Keller and Webster, 2004) and customer loyalty. For this purpose, companies and organizations favour branding efforts that create value for both consumers and companies. This has also had an impact on industrial marketing such as the B2B market, where the fundamentals of IB apply. For this reason, in today's fast-changing markets scenario, IB is becoming a major marketing strategy as demonstrated by the increasing number of products sold with embedded branded components (Prince and Davies 2002; Cooke and Ryan 2000; Washburn *et al.*, 2004). Thus, the main features of IB are delineated in order to clarify the relative concepts and characteristics linked to IB.

IB is a special form of alliance between two brands (Ohmae, 1989; Lorange and Roos, 1992; Parkhe, 1993), based on the cooperation between firms in designing and delivering the product, with particular emphasis on the recognition and identification of the components used in the end product (Pfoertsch and Mueller, 2006; Luczak *et al.*, 2007). In other words, this alliance is sealed when a component part or service of the end product is promoted to the final user. It is worth noting that IB can be analysed from two perspectives: the manufacturer's or the supplier's— this is the case considered in the present paper (Pfoertsch and Mueller, 2006).

Evidence would appear to indicate that branded ingredients affect consumer product quality perceptions, product evaluations, likelihood of purchase, and reservation prices of host brands of varying quality (Norris, 1992). Certainly, if the customer understands and knows the function, features and benefits of a component (ingredient), he/she will pay more attentions to the offer, and if it creates a unique product offer it can lead to loyal and profitable customer relationships (Desai and Keller, 2002).

DESIGN, APPROACH AND METHODOLOGY

The use of different methods, applied synergically, is almost universally used at the new concept and theory stage (Dean, 2004). In order to reach the goal of the paper, direct and indirect data were consequently analysed. The primary data are the outcome of an in-deep interview with the Tetra Pak Italy marketing director, while the secondary data comes out from reports made available by the company. The reports present results – codified in tables and figures - of the co-branding campaign. Thus, two different approaches were used to ascertain the implementation of IB strategy.

The Marketing Director of Tetra Pak Italy was asked to speak about the main tools and actions the company used to communicate with their partners in this campaign during an in-depth phone interview. This method – the qualitative approach - is almost always used in communication research (Dean, 2004). It has to be considered as a first step of investigation that should be followed by other research.

About the secondary data, they offer results on the Tetra Pak Italy post-campaign effects, measured thanks to a questionnaire submitted to customers. Actually, they present: Tetra Pak Image, intention to buy Tetra Pak packages and awareness of Tetra Pak as a brand. These three items, on which the questionnaire focussed, allow to understand the effects of the campaign.

ANALYSIS/DISCUSSION

As is well known, Tetra Pak is a multinational food processing and packaging company of Swedish origin. An important part of Tetra Pak's mission is to "create profitable growth in harmony with environmental sustainability and good corporate citizenship". As part of corporate values, the company takes a long term life cycle perspective committed to improving environmental performance, to communicating openly with stakeholders and to reporting regularly on corporate performance. These principles are deeply rooted in the Tetra Pak Environmental Policy.

In 2005 the Italian branch of Tetra Pak, Tetra Pak Italy was involved in the ITX emergency - (isopropyl thioxanthone) a substance used to fix ink on packaging. The ink curing agent was found to have seeped through the packaging and into the milk. The packaging was produced by Swedish-based Tetra Pak. It is clear that Tetra Pak, a company that places great importance on sustainable development and social responsibility, has suffered enormous damage in terms of corporate image because of this emergency.

To improve the brand's image and recover the brand's reputation, Tetra Pak Italy decided to put in place IB strategy. This choice of marketing was strictly connected to the ITX crisis, as the marketing director himself confirmed.

Before the campaign that was put into practice from March 2007 to March 2008 (see Table 1), Tetra Pak Italy promoted comakership communication to partners - well-known Italian brands involved in the food sector (Parmalat – phases 1 and 5 of the campaign - Zuegg – phase 2 - Granarolo, Caviro, and Conserve Italia). The comakership communication allowed Tetra Pak Italy to arrange IB strategy with partners. All considered brands made the decision to enable co-branding in order to implement IB strategy.

It was admittedly, the first time that Tetra Pak Italy and partners had highlighted the eco-sustainable value of packaging through a communication plan, using: (1) TV advertising (50" and 15" commercials), in co-branding with Parmalat, Zuegg and Caviro (March 2007-March 2008); (2) Magazine advertising, in co-branding with Granarolo, Conserve Italia and Caviro (April 2007 to October 2007); (3) E-advertising on partners' website and competitions-games for consumers (May 2007-April 2008) (Table 1).

	2007												2008					
Media	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
TV			Tetra Pak Italy & Parmalat			Tetra Pak Italy & Zuegg		Tetra Pak Italy & Caviro					Tetra Pak Italy & Caviro		Tetra Pak Italy & Parmalat			

Press																			
Internet																			
AOP add on pack																			

Table 1: Media plan made by Tetra Pak Italy with customers as partners. **Source:** CRC Campaign Update April 2008 (Tetra Pak Italy)

The communication plan required an investment of 30 million Euros used mainly to buy television advertising space; double page spread advertising in newspapers and website space. In addition, many partners dedicated web-space to explain why they chose Tetra Pak Italy. The commercials were broadcast on many Italian networks. The environment was the core theme of the communication plan. “The thickness of a blade of grass, Tetra Pak safeguards taste and the environment”, this was the claim of TV commercials in which the three partners (Parmalat, Zuegg and Caviro) respectively joined Tetra Pak Italy in communicating their common respect for the environment. Several TV commercials were broadcast. Some of them highlighted why Tetra Pak and the other partners were discussing their strategy of sustainable development.

In this way, Tetra Pak Italy implemented IB strategy through co-branding alliances with partners and communicated directly to final customers to attempt to strengthen and improve their joint brand image. The tracking of the campaign, the results of which are shown in a corporate report provided by the company (Figure 2), confirms excellent performance of the main indicators monitored such as: (1) intention to buy Tetra Pak Italy packages (Figure 3), (2) awareness of Tetra Pak Italy as a brand. Many items concerning the company Tetra Pak Italy (as Tetra Pak is a technologically advanced company, Tetra Pak is a company committed keeping food safe in its packages, Tetra Pak is reliable company, Tetra Pak is committed to environment preservation and sustainability) were taken into consideration to measure the effects of the campaign on the company image. All of them are summarized in the following graph (the question proposed to customers was: “For each of the following items concerning the company Tetra Pak Italy, please indicate your level of agreement”). This graph uses these scale of analysis: level of agreement 5 points agree level scale 5 = max agreement 1 = no agreement and the Campaign communication phases.

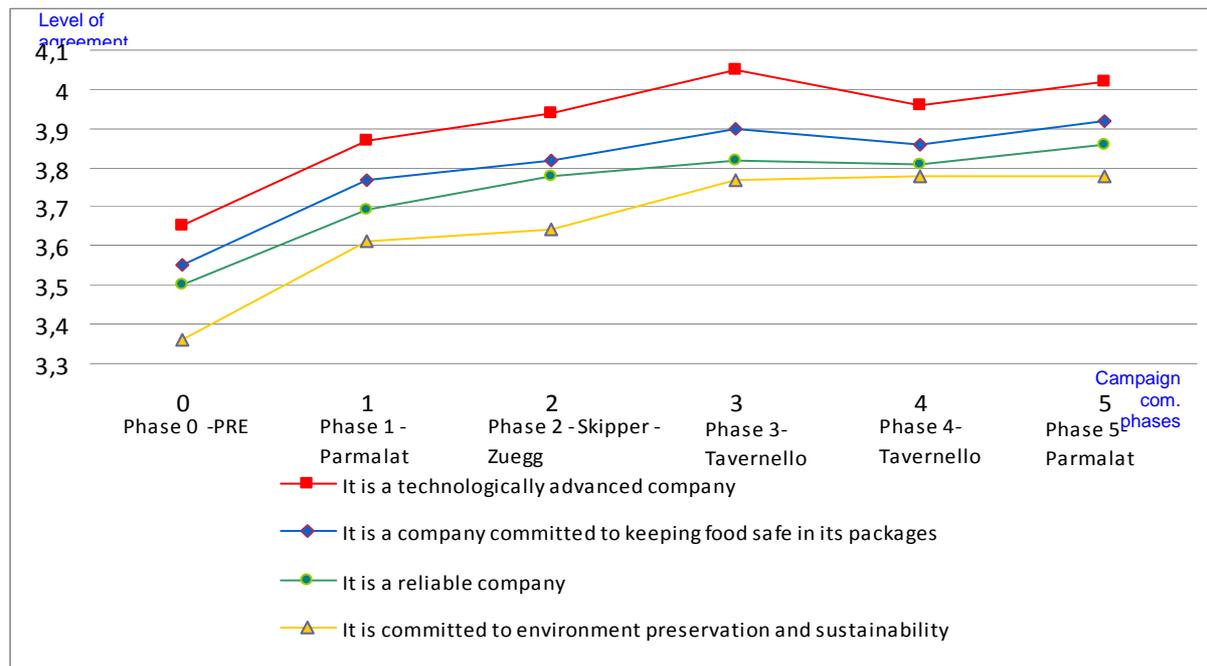


Figure 2: Tetra Pak Image: pre and post IB campaign (2007-2008). Source: CRC Campaign Update April 2008 (Tetra Pak Italy)

Moreover, concerning intention to buy Tetra Pak Italy packages, when this was taken into consideration to measure the effects of the campaign the following question was made to customers (the question proposed to customers was: “Which is your future intention to buy of Tetra Pak packages?”). The outcome of the campaign showed to have caused a positive effect on customers’ intention to buy (Figure 3). Actually the results of each phase of the campaign highlight a growing trends (the answer “for sure I’ll buy them” increases from 28% in phase 0 to 43% in phase 5.

	Phase 0 PRE B :2000	Phase 1 - Parmalat B: 1000	Phase 2 - Skipper - Zuegg B: 1000	Phase 3 - Tavernello B: 1000	Phase 4 - Tavernello B: 1000	Phase 5 - Parmalat B: 1000
	(%)	(%)	(%)	(%)	(%)	(%)
For sure I’ll buy them	28	37	37	39	37	43

Figure 3: Intention to buy Tetra Pak packages. Source: CRC Campaign Update April 2008 (Tetra Pak Italy)

In addition, the outcome of the campaign showed a significant improvement in terms of awareness of Tetra Pak Italy as a brand (Figure 4).

In fact, customers answered positively to the question proposed which was: “Do you know Tetra Pak, likewise a name or since you have seen it advertised or on the shelves?”.

The trend of good reached awareness reaches a peak at start of the second flight (phase 2).

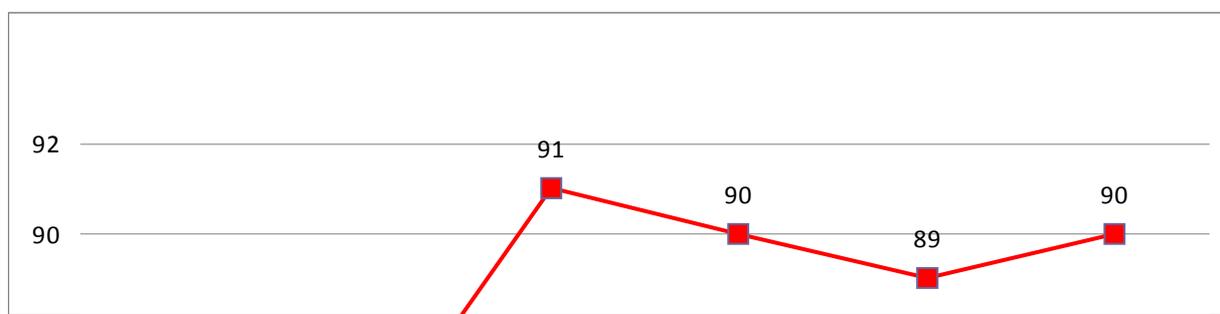


Figure 4: Awareness of Tetra Pak as a brand. Source: CRC Campaign Update April 2008 (Tetra Pak Italy)

In conclusion, the outcome of the campaign showed very positive results on the following items related to Tetra Pak Italy: (1) company and brand built on solid values such as: protection, reliability, environment awareness, and advanced technology; (2) regained consumer trust through marked "intention to buy" based on package and content quality; (3) positive consumer perception towards the partners of the campaign; significant improvement in terms of: visibility; commitment to choosing packages which protect the quality of content; commitment to choosing environment friendly packages and perceived image.

The analysis of Tetra Pak Italy shows that the implementation of the IB strategy enables this company to obtain successful results in terms of brand image. The items identified in the previous section clearly highlight these positive effects. Thus, in the Tetra Pak Italy IB strategy plays a strategic role as a kind of co-branding.

It is important to identify which were the key factors of success of this strategy in the Tetra Pak Italy analysis. In the considered perspective, three factors, emerged from the in-deep interview, have played a very important role to help Tetra Pak to implement successfully that strategy: (1) the previous existing strategic relationships with industrial customers (Parmalat, Zuegg, Granarolo, Caviro, and Conserve Italia); (2) the preliminary comakership communication made to reach these partners in order to involve them into promotional alliances (co-branding); (3) the core theme coherent to Tetra Pak's mission and value system.

About the first factor, it could be highlighted that the main cause which become the basis of this relations is the fact that the comakership was born on the basis of a supply relation between the supplier (Tetra Pak) and manufacturer/producer (Parmalat – phases 1 and 5 of the campaign - Zuegg – phase 2 - Granarolo, Caviro, and Conserve Italia). In actual fact, the well-known Italian manufacturers involved in the food sector chose the innovative Tetra Pak packages for the reason that this product is considered suitable to express their value system too. In fact, the materials which are used by Tetra Pak are eco-sustainable but, at the same time, they are also pioneering in the field of food preservation. The scopes of Tetra Pak packages are shared by all companies involved. This feature is, in fact, an essential requirement of the relationship's origin and persistence. For this reason, it is possible to identify a kind of co-evolution made by the supplier and its partners.

Moreover, those partnerships considered, firstly focussed on corporate strategic aspects, developed on communication collaborations (activities).

On the light of the shared value system, as regard to the second factor, Tetra Pak Italy was able to implement an efficient comakership communication that involved the partners to create promotional alliances and IB strategy. Actually, comakership communication is as important as communication to final consumers. That starting point is fundamental for achieving promotional alliances with partners and co-branding strategies.

Considering the third factor, the values of Tetra Pak brand are also factors which allow the coherence between the core theme of the communication plan and Tetra Pak's mission. In fact, environmental sustainability and good corporate citizenship are corporate values deeply rooted in the Tetra Pak Environmental Policy. Hence, these values make credible the message of the communication plan of Tetra Pak Italy and its partners, based on the core theme of environment safeguard. It is a fact that the core theme recalls values clearly stated in the Tetra Pak's mission and value system which is a strong feature of the communication put into practice in the 2007/2008. This should be an important factor to construct a positive brand image.

SUMMARY

Tetra Pak Italy campaign 2007-2008 analysis shows how to put into practices a successful IB strategy. In order to understand the proposed example, the paper summarised the main characteristics of the considered strategy, presenting several definitions which highlight the fact that it is possible to study the topic from the supplier's perspective.

In fact, Tetra Pak Italy presents an interesting way of involving partners to communicate to final customers. In actual fact, the company firstly implemented a comakership communication with its partners, trying to lever on common value and on long-lasting relationship, and then they decided to plan together a co-branding strategy. This first communicational step strengthened the bonds between Tetra Pak Italy and its partners but at the same time, it puts the bases for a likely IB strategy.

In conclusion, three factors have played a very important role to help Tetra Pak to implement successfully that strategy: (1) the previous existing strategic relationships with industrial customers; (2) the preliminary comakership communication made to reach these partners in order to involve them into promotional alliances (co-branding); (3) the core theme coherent to Tetra Pak's mission and value system.

Moreover, it seems clear that the company made great efforts not only in managing the media and the coherent messages of the IB campaign but also in measuring with a well-shaped questionnaire the effects that the IB campaign had on its final customers.

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PROFESSIONAL AND PSYCHOSOCIAL TRAINING FOR SENIOR MANAGERS OF NON-PROFIT ORGANIZATIONS. A QUALITATIVE RESEARCH

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Since the early 90s Non-Profit Organizations (NPOs) stand out as crucial actors in politics, economics and welfare systems (Salamon, Sokolowski & List, 2003). Italian NPOs are 35.232. They are mainly young and fast growing: in fact, 55.2% of these organizations started their activities after 1990 and, finally, they increased by 36.8% between 1999 and 2005 (Rinaldi, 2008). Italian Non-Profit Sector also has an economic relevance: it has an income of about 38 million euros and an expenditure of 35 million Euros (Cnel-Istat, 2008) and employs 3,908,118 paid workers (Rinaldi, 2008).

NPOs have to cope with and harmonize different motivations, different working times, different training programmes, different approaches expressed both by the staff and the volunteers. A further element of complexity of the management of Non-Profit Organizations is their being accountable to many and various stakeholders: volunteers, donors, clients/people reached by their services; national and local administrators (with which they often co-operate), state institutions and public services (from which Italian Non-Profit Organizations receive a significant amount of money to fund their activities); just to mention only a few of them (Abzug and Webb, 1999).

Purpose

Following the recent contributions by Kong (2007; 2008), according to whom intellectual capital provides a conceptual framework for non-profit strategic management, NPOs even more required to develop their present human resources and generate new skills and competences in order to create innovative services and survive in a more competitive environment. This explorative research aims at identifying the training needs of senior managers of Italian Non Profit Organizations, with special reference to Human Resource Management.

In particular, we formulated the following research questions:

- Which representations do senior managers have of their training and educational needs?
- Which are the strengths and the weaknesses of senior managers of NPOs on training and Human Resources management?
- Which Priority do Senior Managers of NPOs assign to socio-psychological training?

Methodology

The research was developed through the administration of a **semi-structured interview** to 122 senior managers of as many Italian NPOs. Interviews were audio taped and transcribed and subsequently analysed by trained independent judges. Data analysis has been run using a triangulation of qualitative and quantitative techniques of analysis, namely content and discourse analysis, run through the software T-Lab (analysis of word occurrence and co-word mapping), as well as the statistical analysis of questionnaire's responses.

Findings

Data analysis shows that:

- Senior managers of Italian Non-Profit Organizations assess as very different their training needs from those of for-profit and public organizations. Nonetheless, their representation of training and educational opportunities is far to be well defined and clear;
- Money and time constraints, combined with poor quality of training and educational opportunities as well as the selection procedures adopted, have a negative impact on skills and competencies of senior managers of NPOs on human resources management;
- Senior managers of Italian Non-Profit Organizations assess the development of their skills and competencies in Human Resources management as a priority

Originality

The paper deals with training programmes for NPOs, which is rarely approached by the specialized literature. A further value of the paper is represented by the methodology of analysis, which triangulates different qualitative techniques of analysis.

Key words: Third Sector, Non-profit organizations, Human Resource Management, Training of Senior Management

BACKGROUND

Since the early 90s Non-Profit Organizations (NPOs) stand out as crucial actors in politics, economics and welfare systems (Salamon, Sokolowski and List, 2003). Italian NPOs are 35.232. They are mainly young and fast growing: in fact, 55.2% of them started their activities after 1990 and, finally, they increased by 36.8% between 1999 and 2005 (Rinaldi, 2008). Italian Non-Profit Sector also has an economic relevance: it has an income of about 38 million euros and an expenditure of 35 million Euros (Cnel-Istat, 2008) and employs 3,908,118 paid workers (Rinaldi, 2008). NPOs have to cope with and harmonize different motivations, different working times, different training, different approaches expressed both by the staff and the volunteers. A further element of complexity of the management of Non-Profit Organizations is their being accountable to many and various stakeholders: volunteers, donors, clients/people reached by their services; national and local administrators (with which they often co-operate), state institutions and public services (from which Italian Non-Profit Organizations receive a significant amount of money to fund their activities); just to mention only a few of them (Abzug and Webb, 1999).

AIM AND OBJECTIVES

Following the recent contributions by Kong (2007; 2008), according to whom intellectual capital provides a conceptual framework for non-profit strategic management (See e.g. Kong, 2007, 2008), NPOs are even more required to develop their present human resources and generate new skills and competences in order to create innovative services and survive in a more competitive environment.

This explorative research aims at identifying the training needs of senior managers of Non-Profit Organizations, with special reference to Human Resource Management.

More specific aims are to collect information on:

- Procedures and criteria adopted in order to recruit and select senior managers of Non-Profit Organizations;
- How senior managers are trained in Human Resources management and how they assess their training opportunities in this area;
- How senior managers of Italian Non-Profit Organizations assess their own skills and competences in Human Resources management;
- The relevance and priority assigned to Human Resources management by senior managers of Non-Profit Organizations.

In particular, we formulated the following research questions:

- Which representations do senior managers have of their training and educational needs?
- Which are the strengths and the weaknesses of senior managers of NPOs on training and Human Resources management?

- Which Priority do Senior Managers of NPOs assign to socio-psychological training?

METHODOLOGY

A semi-structured interview and an ad-hoc questionnaire were individually administered by trained researchers to 122 senior managers of as many Italian NPOs.

Interviews were audio taped and transcribed. Interviews have been analyzed using different qualitative techniques, namely content and discourse analysis, run through the software T-Lab (analysis of word occurrence and co-word mapping), as well as discourse analysis carried out by two trained independent judges, who developed the codes deductively, systematically reassessed them during the coding process, and finally adapted them inductively.

MAIN RESULTS

Part 1: Representations of senior managers on their training and educational needs

The interview started with an open-ended question: *“What does the word training remind you of?”* Through this question it was meant to understand participants’ representation of training.

We have decided to approach this open question with a content analysis.

Quantitative analysis has been performed using the software T-Lab, carrying out analysis of word occurrence and co-word mapping, sequence analysis and concept mapping analysis.

We have prepared our text for analysis through *lemmatization*, which gives a reorganization of the T-LAB database, creating different tables used to analyze data; this means grouping together words that have the same meaning root, like for example *“training”* and *“to be trained”*. This operation, obviously, has been performed only for the words (lemmas or categories) considered interesting for the subsequent analyses, like *work-job*, *training*, and so on.

In terms of words occurrence, the most cited word is *“training”*, with 97 occurrences.

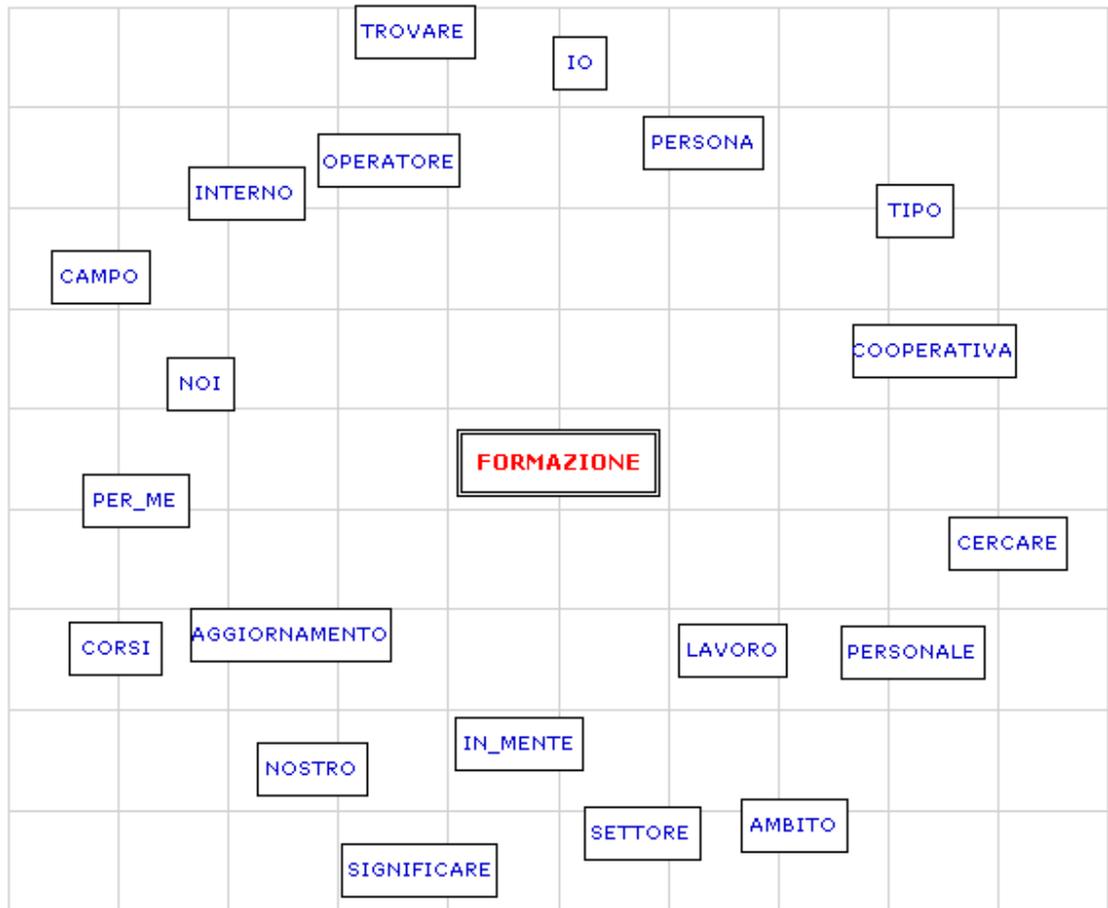


Fig. 1 Graph of word occurrences and co-occurrences on a multidimensional space

WORD	COEFF	OCC	CO-OCC	CHP
Work	0,48	43	28	1,132
In_my_mind	0,419	26	19	2,812
Up-date	0,394	16	14	6,281
People	0,329	30	16	0,427
Organization	0,319	21	13	0,118
Seminars	0,263	9	7	1,474
Experience	0,237	11	7	0,129

Tab. 1 Cosine's Coefficient of word associations for the word "training"

It can be noted that from this analysis (fig. 1, where the more two words co-occur the more they are closed in the dimensional space) training does not seem to be associated with anything like “strategic management”, or “organizational development” or “human resource development”. Training seems to be more considered as a useful way of up-dating professional skills, but not a strategic tool for human resource management

The word “esperienza” (experience) does not compare in the central multidimensional scaling diagram (fig.1), but still shows a quite good index of association (Cosine’s coefficient 0,237), as shown in table 1. Its association with “formazione” suggests that training is strongly associated with direct experience and less with formal or structured occasion of learning.

It is interesting to note too that other words with high association index are related to who benefits from training programmes, namely, “cooperativa” (co-operative organization, one of several types of Italian NPOs) and “persona” (people), with, respectively, a cosine coefficient of 0,319 and 0,329.

This latter result, which considers both the NPO and its workers as subject that receive training, shows how NPO managers have an approach to training which is similar to that of their for-profit counterparts. In these terms, it is evident why for some organizations training programmes are becoming more and more the most powerful tool in terms of *corporate branding*. As an alternative explanation, it is possible to make reference to the fact that NPOs organize training in outsourcing and perhaps for such a reason both the whole organizations as its workers are seen as correlate being the parts that receive training benefits.

In order to go in deeper details of what the words co-occurrence analysis has shown, we have run a [Markovian analysis](#) of the sequences, which are the syntagmatic relationships between the lexical units under analysis. Each lexical unit has a predecessor and a successor that are respectively the lexical unit that comes before it and the lexical unit that comes after it.

Beginning from a matrix in which all the predecessors and all the successors of each lexical unit are recorded, T-LAB calculates the transition probabilities (Markov chains) between the lexical units analyzed (max 1,500).

The following table shows the sorted list of predecessors (the first) and successors (the second) of the lexical unit “training”.

The list is in descending order according to the probability values (“PROB”). For example, in the following table, the probability that “persona” (people) will follow “training” is equal to 0,017, that is 1.0% and the possibility that “work” comes before “training” is 0,43, that is 4%⁵⁵.

⁵⁵ In giving these percentages some meaning, we have to put aside the percentages we usually see in a questionnaire analysis of variance and rather we have to keep in mind that we are discussing about the probability that a word follows another one among millions of words; in this sense 4% is definitely a good percentage.

<i>PROB</i>	<i>PREDECESSORS</i>
0,043	<i>work</i>
0,043	<i>I</i>
0,043	<i>To-my-mind</i>
0,034	<i>In_my_opinion</i>
0,026	<i>up-date</i>
0,017	<i>people</i>
0,017	<i>employees</i>
0,017	<i>professionalism</i>
0,009	<i>we</i>
0,009	<i>study</i>
0,009	<i>social</i>
<i>PROB</i>	<i>SUCCESSORS</i>
0,093	<i>To_my_mind</i>
0,042	<i>In_my_opinion</i>
0,042	<i>To_mean</i>
0,034	<i>internal</i>
0,025	<i>operator</i>
0,017	<i>people</i>
0,017	<i>sector</i>
0,017	<i>task</i>
0,008	<i>professionalism</i>
0,008	<i>employee</i>
0,008	<i>experience</i>
0,008	<i>organization</i>
0,008	<i>Up-date</i>
0,008	<i>we</i>

Tab. 2 *Markovian analysis of the sequences concerning the lexical unit "training"*

Generally in the predecessors list there are the causes of the variable under analysis; significantly, the most probable predecessor, in our case, is "work"; this result may suggest that in participants' opinion, training needs arise in the occupational contexts and that is the work

itself that requires training. In other words, psychosocial training seems to be seen as the professional answer to real organizational needs.

The analysis of successors is not as much clear; among the most associated words there are conversational tools like “in mente” (in my mind), “per me” (in my opinion), “significare” (to mean), which are actually communicative devices to start the response without a real meaningful content.

The rest of the lexical units, “interno” (internal), “persona” (people) and so on in Markovian chains analysis have almost the same probability to be a successor and this stresses the idea that senior managers do not know possible results of training programmes (in fact, in the successors of Markovian sequences there are very often the consequences and results of variables under examination).

Finally, a concept mapping was run, based on a co-occurrence matrix (word x word) and on the mathematical computation of the association indexes (Cosine, in our case), which presents as an output (fig.3) a graphic representation by [multidimensional scaling](#).

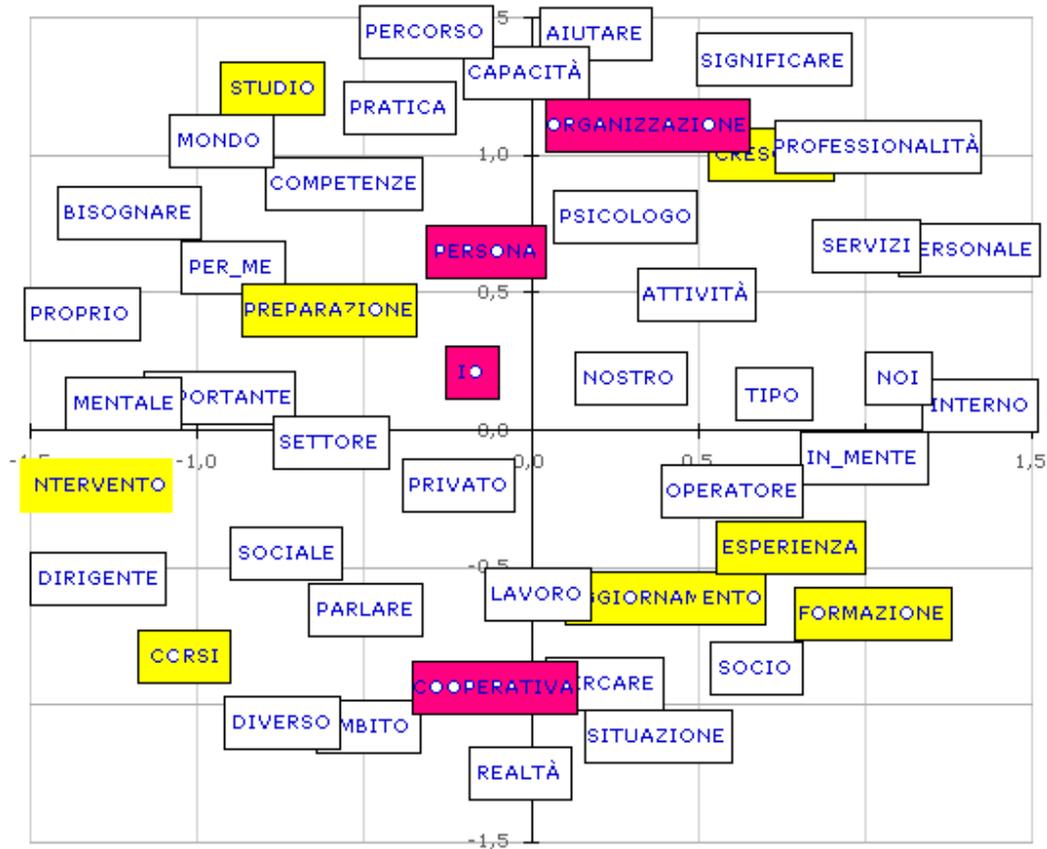


Fig. 3 Multidimensional scaling using a matrix word x word with 7times as cutting level of word occurrence

This analysis was run using as occurrence-point 7 times: this means that the matrix word x word is constituted only by words used at least 7 times in our corpus; this choice has its rationale in terms of facilitating the interpretation of results. Results show two different categorical factors, marked in yellow and pink (fig. 3). The first one refers to the idea of training, going from “study” to “experience”, “update”, “training” and so on; the second factor refers to the entities and people who benefit from training (“persona” - people, “organizzazione” - organization and so on).

The second question of the interview asked whether NPOs have specific training/educational needs.

All participants (N=122; 100.0%) stated clearly that Non-Profit organizations have specific training needs, different from those of Profit Organizations.

The most quoted reasons to explain why NPOs have different training and educational needs from the for-profit and public organizations are mainly related to the kind of intervention they operate: not-profit oriented and people-oriented (N=58; 47.54%) (*“What distinguish us is our attention to society’s needs and weaknesses”; “NPOs need training in order to be able to address people’s needs”; “Our sector is based upon people, relationships; therefore we need motivated and specialized members”; “managing a NPO that offers social services is quite different from managing a public company, dealing for instance with road works”*)

A second group of reason, though less quoted than the first one, deals with the need to improve constantly the services offered, through training (N=21; 17.21%) (*“We need training .. because too often we improvise, we do our work without the proper preparation”; “NPOs are asked to improve constantly their services”; “When you work in the social field you cannot be untrained. Trained members’ work is 100% effective; untrained members’ work is only 25% effective”*)

A third group of reason deals with the need to improve human resource management (N=12; 9.83%) (*“We need specific training to handle our paid staff and volunteers”; “Formal education or a degree doesn’t train enough who wants to work in a NPO”*)

The most quoted training needs of NPO senior managers are: fund raising (N=47; 38.52%) (*“It is vital for us to collect funds”; “Fund raising is fundamental to survive”*); leadership development (N=23; 18.85%) (*we need people able to handle internal dynamics, who’s able to create followers”*); management and organizational skills (N=17; 13.93%) (*“It would be important to get some training opportunities on how to manage and organize the organization” “We should know more on how to develop and value our human resources”*); administrative knowledge (N=18; 14.75%) (*“We need more administration competencies”*); legal and fiscal knowledge (N=15; 12.29%) (*We need to be always updated on laws and rules regarding NPOs”, “We need to know everything about laws and rules as well as fiscal regulations”*)

Part 2: Strengths and the weaknesses of senior managers of NPOs on training and Human Resources management

In terms of training, senior managers are mainly on-the-job trained (N=45; 36.88%); having a specific degree or diploma, related to their job is much less mentioned (N=20; 16.39%); sometimes they also attend informal courses, quite often organized by umbrella organizations (N=16; 13.11%); more often, they take advantage of participating in seminars and meetings (N=36; 29.50%), though those opportunities might lack of continuity and are not part of a broader project.

Knowledge gained from field experiences seems to be highly valued and seniority in the organization or previous experience in its same field appears to play a crucial role in selecting senior managers (*“Senior managers are former field-based workers, who have been given the opportunity to develop their career”; “usually senior managers are already members of their own organization”*).

Seniority in the same organization is regarded by NPOs as a “very important” or “important” criteria in almost 70% of the reached organizations (N=84; 60.85%) (Tab. 2) and a similar percentage (N=82; 67.12%) of current senior managers of participants' own organization were already working in the same Non-Profit Organization before being recruited as such; in add, most recurrent criteria adopted for selecting senior managers are seniority in the same organization (N=49; 40.16 %) and experience gained in the same field of intervention (N=25; 20.49%). Assessment of a candidate through curriculum analysis or job interviews is much less quoted (respectively: N=16; 13.11% and N=11; 9.01%).

	N.	%
<i>Very important</i>	54	4.26
<i>Important</i>	30	24.59
<i>Fairly important</i>	25	20.49
<i>Little important</i>	05	4.09%
<i>Not at all important</i>	06	4.91%
<i>No answer</i>	2	1.63
TOTAL	122	100.00

Table 2. When a Non-Profit Organization recruits a manager, what importance is given to his/her previous field experience in that same organization?

The most quoted obstacle to receive more training is money constraint (N=62; 70.4%), followed by time constraint and poor quality of training and education opportunities (Table 3)

	N.	%
<i>Money constraint</i>	62	70,45
<i>Time constraint</i>	14	15,91
<i>Poor quality of training opportunities</i>	13	14,77
<i>Training is not considered important</i>	11	12,50

Table 3. What are the obstacles to obtaining more training?

It has to be noted that a small group of respondents (N=11; 12.50%) said that sometimes NPOs do not consider training as important as it should be (“NPOs pay little attention to training; it is hard to make people understand how training is important”; “There aren’t many incentives to participate

to training opportunities"; "Training is not a problem, the real problem is NPOs' lack of interest in training"; "Training is under evaluated")

Part 3: Priority assigned by Senior Managers of NPOs to socio-psychological training

Only 12 respondents (N=12; 9.83%) assess as "adequate" the training opportunities offered to senior management by (Table 4). In spite of this such negative assessment as well as the priority assigned to knowledge gained through previous field experiences, the majority of participants (N=63; 71.6%) believe that senior manager of Non-Profit organizations feel they need more training and almost half of them (N=51; 41.80%) believe they feel it quite strongly (Table 5).

	N	%
<i>Adequate</i>	12	9.84
<i>Partially adequate</i>	88	72.13
<i>Fully inadequate</i>	10	8.19
<i>No answer</i>	12	9.84
<i>TOTAL</i>	122	100.00

Table 4. Are training opportunities offered to senior managers adequate?

	N	%
<i>Very much</i>	51	41.80
<i>Fairly</i>	28	22.95
<i>Not at all</i>	31	14.75
<i>No answer</i>	12	9.83
<i>TOTAL</i>	122	100

Table 5. Do Senior Managers of NPOs feel they need training?

Also in the field of human resources management ,according to the majority of respondents (N=84; 68.85%), senior managers develop their competencies and skills mainly on-the-job .

Being asked explicitly to evaluate competencies and skills on human resource management of NPOs' senior managers, more than 70% of participants (N=71; 58.19%) consider them as "inadequate"("Senior managers are poorly, not professionally trained on human resource

management"); a minority (N=21; 17.21%) consider them as "adequate" and about one fourth (N=30; 24.59%) cannot express an opinion on this matter.

About two thirds of respondents (N=92; 75.40%) (fig. 6) believe that training senior managers on Human resources should be considered as a priority among NPOs.

	N	%
<i>Very important</i>	61	50.00
<i>Important</i>	31	25.40
<i>Fairly Important</i>	16	13.11
<i>Little important</i>	7	5.73
<i>Not at all important</i>	7	5.73
TOTAL	122	100

Table 6. What importance should be given to training senior managers on human resource management?

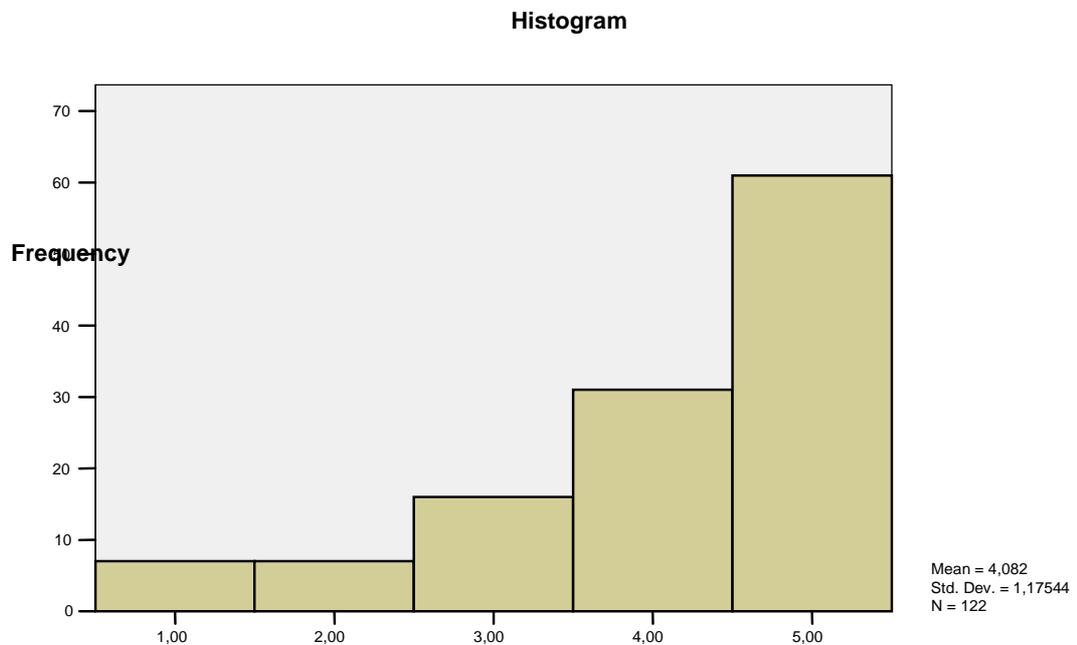


Fig. 4 Training Importance

The data of this single item have been processed for the Kolmogorov-Smirnov statistical test. This is a non-parametric test that measures the discrepancy between the distribution of data and an ideal Gaussian distribution, and is used to test the normal distribution of the numerical data. The Z of 3,121 is significant at $p < 0.001$ (tab. 4), meaning that there is a deep discrepancy in the distribution of responses and namely that training is judged by our sample managers in a very polarized way, and in particular as being definitely important.

Descriptive Statistics

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Minimum</i>	<i>Maximum</i>
<i>Training Importance</i>	122	4,0820	1,17544	1,00	5,00

	<i>Training Importance</i>
<i>N</i>	122
<i>Mean</i>	4,0820
<i>Normal Parameters(a,b)</i>	
<i>Std. Deviation</i>	1,17544
<i>Most Extreme Differences</i>	
<i>Absolute</i>	,283
<i>Positive</i>	,217
<i>Negative</i>	-,283
<i>Kolmogorov-Smirnov Z</i>	3,121
<i>Asymp. Sig. (2-tailed)</i>	,000

a Test distribution is Normal.

b Calculated from data.

Tab. 4 One-Sample Kolmogorov-Smirnov Test

CONCLUSIONS

Part 1. Representations of senior managers on their training and educational needs

Senior managers of Italian Non-Profit Organizations assess as very different their training needs from those of for-profit and public organizations. Nonetheless, their representation of training and educational opportunities is far to be well defined and clear. From the analysis carried out with T-lab it emerges that NPOs need to be helped to fully address their training needs. not only because of poor quality of training opportunities, but also because they do not seem to have clear ideas on what training may offer them in terms of organizational development and strategic management.

In addition, it does not seem that training is perceived as a strategic tool for organizational development, but rather a way to update and improve professional skills

Part 2: Strengths and the weaknesses of senior managers of NPOs on training and Human Resources management

Senior managers seem to have a deep knowledge of their own organization's field of intervention and are well aware of their own organization's values, mission and interventions, as it might suggest the priority assigned to previous field experience in the same organization or in a similar organization.

Their knowledge and skills are mainly oriented towards effectively managing the relationship between the organization and its environment; much less developed are competencies and skills on managing the organization in terms of valuing and developing human resources.

NPOs' organizational cultures appear to privilege action and pay less interest in reflecting on action as well as dealing with theories and techniques on organizational management. This approach is obviously to be connected with the reason why a NPO starts its activities: namely to give answer to the specific needs of a targeted group of people. Italian NPOs often struggle with tight budget (Rinaldi, 2008). This might well explain why fund raising is the most mentioned training need. On the other hand, this continuous struggle to survive financially and economically might lead to operate on a day-by-day basis and create some difficulties in shaping a strategic management of the organizations, as it might be suggested by the priority given to previous experience on the organization in selecting senior managers, as well as the relevance assigned to leadership development and training on human resource management.

In add, money and time constraints, combined with poor quality of training and educational opportunities as well as the selection procedures adopted, turn out to have a negative impact on skills and competencies of senior managers of NPOs on human resources management, which are evaluated by respondents both important and insufficiently developed

Part 3 . Priority assigned by Senior Managers of NPOs to socio-psychological training

According to respondents, senior managers of Italian Non-Profit Organizations assess the development of their skills and competencies in Human Resources management as a priority and believe that this opinion is shared among the other senior managers: two thirds of participants consider "important" or "very important" to train senior managers in this field and only a minority evaluate their present knowledge as adequate; in add, they assess as "poor quality" educational and training opportunities offered to them.

It might be interesting, however, to investigate more in depth into the approach adopted by NPOs towards training. From the interviews it emerges that there might be a problem of legitimation of training, as suggested by those who affirmed that "NPOs do not consider training important". As it has already noted, training is limited by the paucity of resources and

the poor quality of opportunities, but maybe further elements to be considered are the culture and values embedded in organizational of NPOs.

Priority assigned to field experiences as well as to knowledge developed on-the-job suggests being in presence of an organizational culture that is strongly action-oriented and not fully able to cope with long-term planning and strategic management.

If this is the case, there is a risk for NPOs of being stuck in a vicious circle, in which money and time constraints, together with lack of opportunities, motivate to reduced interest in training and perpetuate the difficulties in strategic management.

The conceptualization of NPOs being different and their awareness of having different training needs from the for-profit and public organizations might well play a role in this, since they might be leading to underestimate the relevance of applying theories and techniques of strategic management already (successfully) adopted by their counterparts.

Not only for-profit and public organizations, but also NPOs are now more and more under pressure to make the best use of the existing tangible and intangible resources, to survive and develop new opportunities in a competitive environment (Kong, 2007; 2008)

A limit of the present research is the lack of a statistically representative sample of NPOs; the group of NPOs reached is to be considered only a convenience sample. Therefore, it has not been possible to carry out any analysis taking into consideration variables such as age (years of activities), dimension (number of members, financial resources), type of NPOs (voluntary organizations, co-operatives, foundations, associations, and other NPOs), which might have suggested different point of views

This research might be further developed through the administration of a questionnaire, collecting data on a larger group and statistically significant sample of NPOs. It could be interesting, too, to make a cross-cultural comparison, reaching NPOs of other countries.

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INTERCORPORATE SOCIAL RESPONSIBILITY AS A NEW WAY TO SOLVE PRODUCTION EXTERNALITIES. A CASE STUDY

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Purpose - The present paper, based on the concept of intercorporate social responsibility (Tanucci & Cortini, 2008a; 2008b), aims to investigate the role of corporation networks in green management and, in more general terms, in solving production externalities.

In particular, we would like to present the construct of intercorporate social responsibility as a new way of solving production externalities.

Approach - The general theoretical perspective from which we start is that of industrial and organizational psychology, while the peculiar theoretical framework to which we refer is the International literature on externalities and industrial symbiosis, whose basis is business oriented.

The paper, which is theoretical in nature, presents in its final section a case study relating to a project involving a consortium of 60 Italian organizations which exchange production externalities through an electronic platform to which they are all connected 24 hours a day.

Originality - The originality of the paper derives, in theoretical terms, from the application of the principles of industrial symbiosis at a SME level and from its attempt to sustain, theoretically, an important difference in relation to industrial symbiosis: the possibility of conceiving externality exchange in a more flexible way, allowing corporations to exchange different externalities with different parties without always following the same paths of exchange. Such a novel model, presented in the final section of the paper, is possible as a result of an electronic platform that manages the availability of externalities within the network.

Moreover, to our knowledge this is the first time that a psychological perspective has been applied to the theme of industrial symbiosis and externalities.

Key words: Intercorporate Social Responsibility, Industrial Symbiosis, SMEs, Externalities, Case Study.

INTRODUCTION

Generally speaking, in the most recent International literature “Corporate Social Responsibility” (CSR) refers to some virtuous behaviour performed by a single and specific corporation, for example, using a method of production that is sensitive and respectful toward the environment (see, for example, the review proposed by Egri and Ralston, 2008).

The idea of intercorporate social responsibility, instead, stresses the potentiality, in terms of corporate virtuous behaviours, of a network of different organizations. In other words, the core idea of our paper is that together it is possible to perform better and in an even more ethical way.

The idea of intercorporate social responsibility came into being as a result of a project through which we developed a new way to address the issue of production externalities, an approach similar to the one used in industrial symbiosis and eco-industrial parks, that is, the exchange of externalities among corporations. Production externalities, which generally represent a challenge that has to be managed in order to prevent corporations performing in a non-ethical

way, become a source of CSR if they are exchanged (Cohen-Rosenthal, 2003; van Beers et al., 2007; Salmi, 2008; Yang & Feng, 2008).

The paper explores the idea of intercorporate social responsibility within the most recent literature on industrial symbiosis and reflects, in a more general way, on the use of externalities as a way of supporting organizational development and corporate virtuosity.

PRODUCTION EXTERNALITIES AS ORGANIZATIONAL CHALLENGES

In order to clarify the concept of externality we can start by making reference to its etymology. The word comes from the Latin *externum*, derived from *exter* and stresses the fact of being external. In economic terms, the word externality makes reference to involuntary effects of production and consumption, effects for which nobody pays (when they are positive) and for which nobody is compensated (when they are negative). In other words, an externality occurs when a decision or an act causes costs or benefits to third-party stakeholders (Pigou, 1954).

Generally speaking, externalities have been associated with diseconomics and market failure, since they do not have a link with the core business of their producer. As an example, industrial pollution is in some sense necessary to produce cement, though of course this pollution cannot be put on the market. In addition, there has been much discussion in the literature about negative externalities and the way in which it would be possible to confine them, while little attention has been given to positive externalities. With regard to the latter, they demonstrate the subjective nature of externalities, which very often can be seen in both positive and negative terms: what represents a negative externality for one person may be a positive externality for someone else (Hey, 2003). To give an example, the high volume levels of the music from the gymnasium located in front of my house may represent a negative externality for me, since I work at home and my work, being cognitive, requires concentration, while it may represent a positive externality for my husband, who loves listening to the music while painting.

Even if externalities are not wanted by the producer or the receiver, they may nevertheless be so significant as to raise political issues and require correction efforts (Hey, 2003). In addition, the growing scrutiny of corporations by green movements, citizens, employees and other stakeholders in terms of ethical behaviour forces corporations themselves to confront externalities and try to find some solutions.

It is no surprise that production externality attracts most of the research interest and political policy importance, since it may give rise to serious effects for potential victims (Hey, 2003). Within this field of political and academic interest a specific literature has developed regarding solutions to the problem of externalities.

These issues, in response to the threat to Pareto optimum which externalities represent, arise when one of the social actors involved becomes conscious of the role externalities may play. (Paradoxically, if a victim of an externality, for example, pollution, is not aware of the pollution or is not concerned about it, there will be no need for a solution.)

Pigovian taxes and the so-called Coase Theorem are the main solutions, apart from what has been proposed as the internalization of effects (Desrochers, 2004). This latter, as we have already noted, appears to us to be a poor solution, since we live in a specialized economy that does not

allow externalities to be transformed into something internal, at least for the SMEs which we are examining.

Pigovian taxes are concerned with negative externalities, the costs of which they are an attempt to correct. For example, a Pigovian tax may be levied on producers who pollute the environment to encourage them to reduce pollution, and to provide revenue which can be used to counteract the negative effects of the pollution.

The Coase Theorem, on the other hand, is a private negotiation between the parties involved that aims to reach a social equilibrium that maximizes the efficiency of the use of a given resource, on the basis of market bargaining, in turn developed thanks to the property rights. The sole conditions required to allow the model to work are the null cost of the transactions and the existence of a perfect competitive market.

It would be possible and interesting to discuss criticisms of these classical solutions, but our concern here is to present a new way of solving externalities: their mutual exchange, or, in other words, externality recycling.

INTERCORPORATE SOCIAL RESPONSIBILITY

By proposing the concept of *intercorporate social responsibility* (ISR) we wish, on the one hand, in terms of theoretical speculation, to anchor our proposal to the stakeholders' perspective and, on the other, in more pragmatic terms, to invite corporations to think about themselves and to conceive themselves not only as an isolated entity in a never-ending struggle with other competitor corporations, but rather as a part of a network.

The idea of intercorporate social responsibility is not totally new. Some years ago, in fact, Bond and colleagues carried out a series of studies to evaluate the influence of intercorporate networks on social and political corporate behaviours (Bond et al., 2006). They found that corporations and directors involved in corporate networks were more likely to undertake more charitable actions and give donations.

In brief terms, we believe that it will be easier for a network of corporations than for isolated firms to perform Corporate Social Performance activities, and there are at least two different reasons for this. The first relates to the ease with which it is possible, as we will demonstrate, to perform ethical waste management when part of a network (simply because what represents waste or a by-product for Firm A may become an important resource for Firm B). The second reason relates to a psychological factor, namely a deeper consciousness of being in unity with other people, of all of us being citizens of the world who are the receivers of corporate behaviours.

This is the situation in industrial symbiosis and eco-industrial parks, whose principles we will review in the following section. We agree totally with those (Cohen-Rosenthal, 2003; Hewes & Lyons, 2008) who have underlined that, besides the mere technological devices, the most important key for the success of industrial symbiosis projects lies in the relational levels between the parties involved.

POST KALUNDBORG-PROJECT INDUSTRIAL SYMBIOSIS

A review of the concept of industrial symbiosis is not a simple task, and it is not the principal aim of our article. There are several articles and contributions on this issue (see, for example, the two special issues published by the *Journal of Cleaner Production*, in 1997 and 2004) which may serve as a reference point for the reader in this respect. Our concern here is rather to propose a broad definition of industrial symbiosis and to reflect in a critical way on the future of such an economic construct and of the related practical initiatives of eco-industrial parks.

Industrial symbiosis (literally “living together”) refers to the exchange of materials and energy between enterprises for mutual advantage. Other comparable terms have been used: *eco-industrial parks* (Lowe, 2001), *eco-industrial development* (Cohen-Rosenthal, 2003) *regional resource synergies* (van Beers et al., 2007), *complex utilization* (Salmi, 2008), *circular economy* (Yang & Feng, 2008). In all of these models the aim is to achieve ecologically sustainable industrial activities, engaging traditionally separate enterprises in a collective approach involving the physical exchange of materials, energy, water and by-products in order to gain competitive advantages (Chertow, 2000).

The theoretical basis on which industrial symbiosis has developed are those of industrial ecology (Frosch & Galopoulus, 1989⁵⁶) on the one hand and cluster-based economy, developed in turn by Porter (2000, among various studies on the same issue) on the other.

When discussing industrial symbiosis almost all the articles in the specialist literature make reference to the famous project developed in Kalundborg, Denmark, which seems to have been the first attempt to apply the principles of industrial symbiosis.

⁵⁶ Although the term “industrial ecology” was used for the first time by Frosch & Galopoulus in 1989, the idea of industrial ecology dates back to the mid-1950s (for a review, see Erkman, 1997).

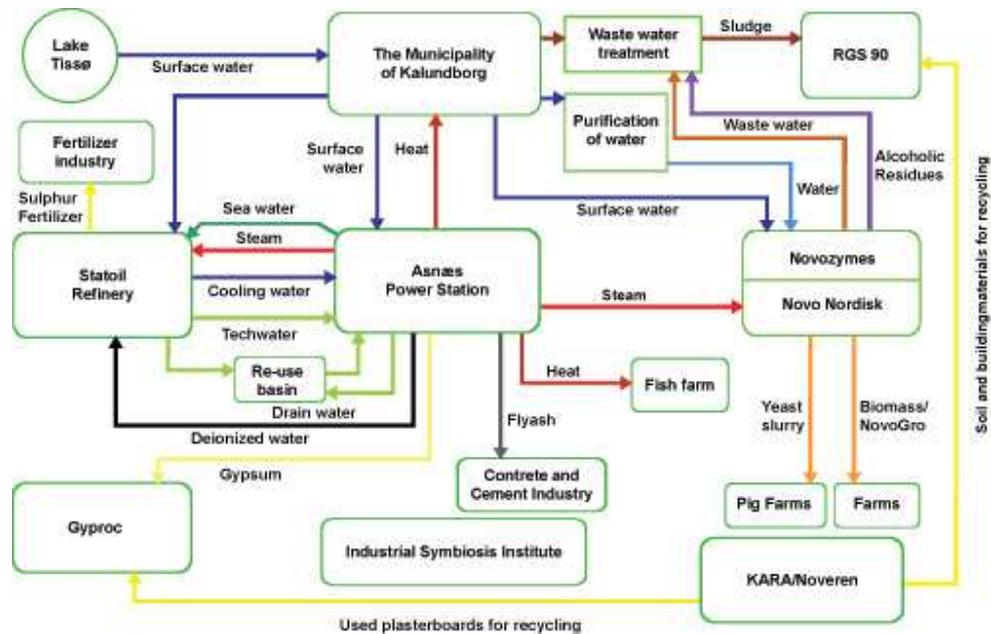


Fig. 1 Schema of exchanges among Kalundborg organizations (<http://www.symbiosis.dk/industrial-symbiosis.aspx>)

The industrial symbiosis project of Kalundborg is a network involving cooperation between seven companies and the Municipality of Kalundborg technical departments.

The philosophy behind the Danish project is that the seven companies (DONG Energy Asnæs Power Station, the plasterboard factory Gyproc A/S, the pharmaceutical plant Novo Nordisk A/S, the enzyme producer Novozymes A/S, the oil refinery Statoil A/S, RGS 90 A/S and the waste company Kara/Noveren I/S) and Kalundborg Municipality exploit each other's residuals or by-products on a commercial basis. One company's by-product becomes an important resource for one or several of the other companies. The outcome is reduced consumption of resources and a significant reduction in environmental strain.

We agree with those authors (Erkman & Ramaswamy, 2005) who have underlined the fact that the case of Kalundborg, although without doubt an excellent benchmark, also includes some misconceptions, since it stresses in an exaggerated way the issue of waste exchange and management, suggesting that industrial symbiosis is this and only this. In fact, industrial symbiosis refers to resource management and not only to waste management, although, as we will see, waste management and in particular the theme of externalities is the core idea of our research agenda.

In addition, and perhaps more importantly for us, in Kalundborg and in similar eco-industrial parks the pathways of resource and waste management among different corporations to support green management are always the same; in other words, the directions of relationships among different corporations and the nature of what is exchanged never change.

In fact, as can clearly be seen in Figure 1, some companies never exchange anything with one another (for example, Gyproc does not exchange anything with RGS 90) and what is exchanged

between two or more organizations is always the same thing (for example, Novo Nordisk always gives pig farms yeast slurry). In addition, since the basis of industrial symbiosis is commercial, it happens that some corporations only give while some only receive by-products from the others (in relation to Kalundborg, consider Kara/Noveren on the one hand and Gyproc and pig farms on the other).

Applying industrial symbiosis at a SME level

Although there is now a consistent body of articles on these themes, some issues related to industrial symbiosis seem to us to be still unclear and in need of further investigation.

As a first step, it is yet to be verified whether industrial symbiosis, which has been demonstrated to function well on an industrial scale, can be applied with ease to small and medium enterprises (SMEs) and family enterprises. In particular, our project aims to verify the conditions under which industrial symbiosis works at a very local level and in family firms.

Some other authors have highlighted the scarcity of both literature on and experience of industrial symbiosis applied at a SME level (Lambert & Boons, 2002), and have called for a new research agenda that includes this type of scenario, which will increasingly characterize our future. An interesting exception is that of Burnside Industrial Park (Coté & Hall, 1995; Lowe, 1997; Coté & Cohen-Rosenthal, 1998), near Dartmouth (Nova Scotia, Canada), an initiative started in 1992 and called “the industrial park as an eco-system”, which, although much work has been carried out on it, has not achieved the desired results (Lambert & Boons, 2002).

According to the literature, the differing interests of the enterprises involved and the lack of cooperation and organization seem to be the primary causes of the slowing down or failure of most of the initiatives of mixed eco-industrial parks, although the lack of enterprises specializing in waste collection, processing and recycling and the lack of opportunity to cluster comparable enterprises can also be put forward (Lambert & Boons, 2002).

However, in our opinion the primary and basic problem with “mixed industrial parks” (the name for eco-industrial parks housing SMEs) relates to the rapid evolution of the parks themselves, with some enterprises leaving and others appearing. In such an ageing process there are closures or relocations of existing industries with differing concerns, features and interests, so that old patterns of symbiosis become obsolete. For this reason, mixed industrial parks need more flexible management and adaptive skills to enable organizations to exchange different externalities with different parties over time. It is exactly in this context that we moved to develop our study, with the additional intention of testing whether this idea of putting together different organizations in an externality exchange system works under the conditions of any commercially based system.

In particular, what we would like to develop is something beyond the core business of the SMEs involved. In fact, in the network we are developing there are no direct financial benefits in giving other enterprises one’s residues and externalities. Rather, firms can develop a reputation as a CSR entity, which, in turn (and in time), may bring financial benefits. The financial benefits emerge when an enterprise receives externalities gratis.

The core idea of the project is to put together a network of organizations so that they can mutually exchange their externalities in the most flexible way, without having in mind a predetermined system of exchanges, as happens in classical industrial symbiosis (as can be seen in Figure 1).

The real benchmark we have followed is perhaps better represented by experiences of time banking⁵⁷ than by industrial symbiosis, although the greening principles are those inspired by industrial symbiosis and industrial ecology. What is valuable in the time banking experience is the idea of strengthening communities through reciprocity. We started with this idea of cooperation among firms and organizations (which was in itself a novelty, since organizations are nowadays increasingly accustomed to a competitive scenario), adding a shared aim: that of preserving the environment with an intelligent waste management system.

As is the case in time banking, proposals and needs are centrally managed to enable the best possible match to be found and, more importantly, to enable the behaviour of all the organizations to be monitored in order to prevent any organization from only receiving externalities from the others without giving anything at any time. Central coordination has also been advocated as a necessity by Desrochers (2004) who, like us, proposes internal market coordination rather than public central planning. The difference between our approach and that of Desrochers is that we would never support the creation of an institution that would force enterprises to internalize their externalities, since we believe that the highly specialized economy in which we live represents a serious obstacle to internalization. It is precisely for such a reason that we have investigated a new way to address the issue of externalities.

In particular, every proposal an enterprise makes, within the network under analysis, is linked to some externalities or by-products. An organization offers an externality and a second organization may take advantage of it. The externalities offered cannot be related to the core business because they are not sold but rather given gratis.

RECYCLING EXTERNALITIES: A CASE PRESENTATION

The idea of recycling externalities as a solution originated as a result of a European project in which we have been involved.

In particular, in collaboration with several colleagues, both academic and professional, we have developed a technological platform by which a consortium of 60 Italian enterprises (named *Costellazione Apulia*⁵⁸) can exchange externalities within a European-funded project called *Avanzare* (Progress).

Consortium *Costellazione Apulia* was established in December 2001 and brings together around 60 family firms with a shared interest in cooperation and innovation. In particular, within *Avanzare*, Consortium *Costellazione Apulia* was intended to test a new way of operating, above and beyond traditional economics, based on the exchange of externalities in order to make the firms' situation more competitive and sustainable. *Avanzare* is a project co-funded by

⁵⁷ For further information, visit the website <http://www.timebanks.org/>

⁵⁸ For further information on the project, visit the following website <http://www.costellazioneapulia.net/>

the European Union (793,000 euro) under the 6.2 del POR Puglia 2000–2006 and realized by Consortium Costellazione Apulia with the aid of the University of Bari and Polytechnic of Bari. Its main aim is to promote the first portal to support inter-organizational exchange of externalities. The idea was to make easier the exchange of production externalities (which usually represent some waste) among different organizations, while observing the development of special interactive and interorganizational social responsibility.

The recycling of externalities is based on the primary characteristic of externalities themselves: the fact that they are subjective. What is judged by Corporation A to be waste (that must be managed, losing time and resources) may be judged by Corporation B to be something useful.

In other words, in our model the externalities are the residues of production and are offered to other firms who may be interested in such remainders. The following is an example.

Imagine that a firm needs to travel from Rome to Milan once a month to allow the human resource manager in Rome to talk with his or her counterpart in Milan, and that this corporation organizes the journey by car. An employee from a second firm may occasionally need to travel from Milan to Rome in order to meet an important client. Imagine that these two firms are in a network that lets them know about the other's needs and externalities. As an output we have the opportunity for the second firm to take advantage, assuming flexibility in terms of the time of travel, of the first firm's travel without additional costs. This second firm could reciprocate in some way by, for example, giving the first firm the opportunity to use a photocopying machine when it is not being used. If the two firms travel together there will not only be a financial saving but also a minor impact on the environment. This last point is worthy of our attention, since many production externalities represent some risks to the environment, and being able to offer someone else one's own externalities may mean they are transformed from residues into something useful. Such a meaning is represented by the Italian word *Avanzare*, the name of the project, which can be translated as both "to develop", "to advance" and "to remain"; a residue, when well recycled, is transformed into money saving and wealth and, in terms of green management, into a reduced impact on the environment.

The result is a network of organizations that can be called sustainable, since they become more and more conscious of the externalities they produce in carrying out their business and, in addition, they are able to correct negative externalities and to develop positive ones.

In this sense, the consortium of firms we have put together acts to develop ISR, since sustainability is guaranteed by the fact of being part of a network.

ICT to support a new way of solving production externalities

The exchange of externalities has nothing to do with Pigovian taxes. In some sense it recalls the principle of Coase Theorem, being based on private negotiations, the only difference being that externalities are not taxed nor paid for: money plays no part in our consortium.

The different corporations exchange among themselves their production externalities, or residues, which would otherwise have become waste products.

To be more precise, a corporation does not always receive externalities from the corporation to which it has given externalities; this would be unusual. More usually – and this is the

philosophy of the project – firms offer their externalities to the whole community of corporations, and take what they require from all the community's externalities, as has already been underlined. This highlights the main difference between a strictly industrial symbiosis and this project.

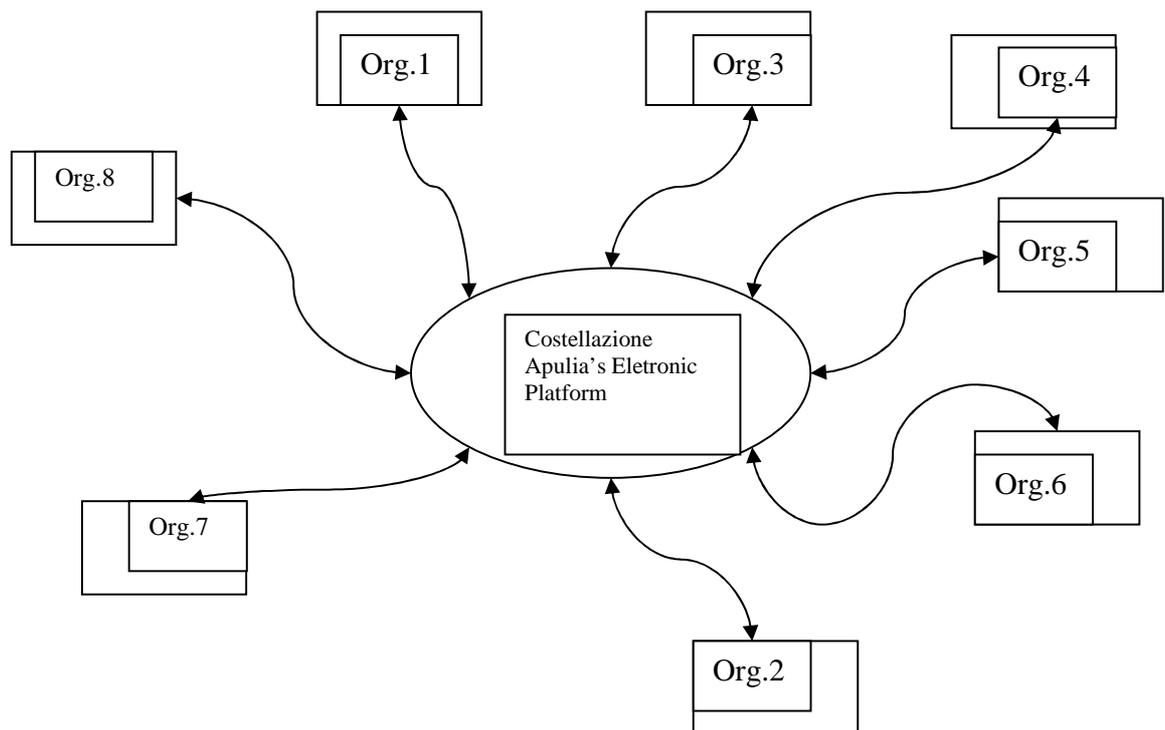


Fig. 2 Costellazione Apulia's Electronic Platform system to support externalities' exchange

As should be clear from Figure 2, the system being developed is more flexible than those generally involved in traditional industrial symbiosis. The enterprises involved exchange their externalities with one another with the help of a central planning system managed by an electronic platform, so that there is an element of central control over the enterprises.

For the externalities they donate, enterprises are given credits that can be used to obtain externalities that others have made available. In this sense there is no commercial agreement but what can be termed an ethical expectancy: if today I give a specific externality to the network I can expect to receive back an externality as soon as the central planning system alerts me that there is an externality that may be useful for my purposes. In fact, no one knows in advance

which enterprises will be connected to one another, and no one knows which externalities will be exchanged.

An important factor, which is similar in some ways to the Coase Theorem, is the null costs of the exchange of externalities. In other words, if there were huge costs involved – either in economic terms or in terms of time – in letting others know about one's own externalities and finding out what externalities were being offered by others, the projects could not work.

For this reason we have developed an electronic platform by which the consortium of enterprises can exchange information on residues and externalities.

The electronic platform, namely an IC technology combining the Internet and the mobile phone, first of all allows a rapid transfer of information. In this sense, if the externality takes the form of some information, the externality exchange can take place straight away. If the externality takes the form of something material, we will become aware of its availability, which is fundamental for the exchange itself. It is important to underline that in this case what allows the exchange of externalities is the proximity of two firms (the idea of the Consortium), otherwise the costs related to the exchange will outweigh the benefits.

The media we have chosen to support the exchange of externalities are the Internet and the mobile phone, because of the ease of sending and receiving messages concerning the different availabilities, value of the items, usability and mobility.

Including a certain number of social actors, namely firms, in a network produces benefits that are proportional and that correspond to the number of social actors involved; these actors would contribute an exponential number of externalities in favour of the network community, as suggested by Metcalfe's Law.

With regard to the main finding, we are still monitoring the organizations involved, so do not have definitive outcomes. An initial examination suggests that the corporate climate is definitely favourable in almost all the firms in the consortium (Tinelli, Pagano, Cortini, 2007). The gains refer to the environmental and social sustainability of the individual firms, and also to the benefits derived from the exchanges of externalities. In other words, there will be lower production costs, higher product quality and less environmental impact for each individual act of corporate social responsibility, and in addition for each externality exchange.

CONCLUSION AND RESEARCH AGENDA

We have presented a European Project, Avanzare, we have developed with the aim of applying a peculiar industrial symbiosis at a SME level.

In particular, the main findings of the above project refer, on the one hand, to a new way of solving production externalities, that is to say recycling and exchanging these externalities among different corporations. On the other one, the project can be seen as a new way of conceiving industrial symbiosis, namely involving flexible exchanging routes among involved corporations (fig. 2).

With regard to the research agenda on industrial symbiosis and externalities from an industrial and organizational psychology point of view, it seems necessary to extend the

methodological tools that are able to measure eco-industrial outcomes, from both a strictly eco-efficiency perspective and a psycho-social perspective.

In addition, it would be useful to understand better what happens in the relationships between enterprises involved in industrial symbiosis or externality exchange projects and the local communities in which the enterprises are located. Some authors have started to consider so-called *urban symbiosis* (van Berkel et al., 2009), stressing the way in which eco-industrial parks are often nested within the urban and social contexts, especially those that involve SMEs. This presents many challenges in terms of *nurtured landscape* (Yang & Lay, 2004), a neologism that underlines the possibility of mediating between the natural eco-system and the urban/industrial environment.

In particular it would be very interesting to study a specific population: that consisting of people who are citizens living in an area which is near or nested within an eco-industrial park and at the same time employees of one of the enterprises involved in the network. In other words, the following would be an interesting research proposition: "Do employees of an enterprise involved in intercorporate social responsibility show higher levels of both organizational and community commitment?"

Finally, industrial symbiosis and related projects, such as externality exchange and recycling, are almost always seen and studied in terms of resource savings. An underexplored dimension of industrial symbiosis and eco-industrial parks such as Costellazione Apulia is their influence on regional innovation activities. Such an issue, which is rarely addressed within the specialized literature (Mirata & Emtairah, 2005), is still not adequately studied and deserves more attention, since it is interesting not only for its own sake but also because it relates to the cited theme of the relationship with the local community and to that of employability and opportunities for employment.

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PRIVATE EQUITY FOR DISTRESSED COMPANIES IN ITALY

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Purpose - The purpose of this paper is to provide a comprehensive overview of turnaround financing in Italy, meaning operations regarding distressed or troubled companies, carried out by professional private equity investors.

Design/methodology/approach - After a short survey on the Italian turnaround financing market (based on sector data), the research tries to investigate whether there has been an improvement in comparison to the situation surveyed in the past, by means of analyzing the answers to a questionnaire submitted to a selected sample of professionals.

Findings - A significant change within the sector was expected in Italy. Although sectorial data show a rise, turnaround is still less than 5% of the Italian private equity market. The new legislative framework will probably cause significant, long-term effects; nonetheless, some delicate issues responsible for the slow development of the market still remain unresolved.

Originality/value - While economic literature about venture capital is very articulated, this is not the case with vulture funds. Works dedicated to the Italian market (Perrini, 1997; Danovi, 2001 and 2003) have shown a general lack of interest for this private equity niche. More recent studies (AIAF 2009) trace the birth of specialized funds. In comparison to the situation surveyed in the past, this study tries to investigate whether there has been an improvement.

Research limitations/implications - Even if linked with the small size of the market, the size of the analyzed sample is obviously a limit in extending the results of the research. However the study provides a starting point for further research in this private equity niche.

Key words: Vulture funds; turnaround investing

Jel classification: G24 - Venture Capital

INTRODUCTION

For several reasons, vulture funds have never been popular either with the layman or academics⁵⁹. While economic literature about venture capital is very articulated⁶⁰, this is not the case with vulture funds. Even in recent years, only a few academic papers have appeared (Hotchkiss and Mooradian, 1997; Rosenberg, 2000; Gilson, 2001; Feder and Lagrange, 2002; Altman, 2004; Altman and Hotchkiss, 2006; Kutcher and Meitner, 2006 about the German market; Krasoff and O' Neill, 2006).

⁵⁹ There is even a novel by the well-known American mystery writer Stephen Frears, *The Vulture Fund*, which tells about an investment bank plotting to set up a speculative fund aimed at investing in depressed real estate stocks and bonds, while financing a terrorist attack on a nuclear plant near Manhattan.

⁶⁰ For a bibliography focused on the Italian market see Gervasoni and Sattin, 2000. On the role of finance in times of crisis see Blatz, et al., 2006.

Some works seem to reflect on the “social” role of operators, often seen in a negative light and called *vulture funds*⁶¹, notwithstanding the effectiveness and value creation entailed in their activity. Gilson (2001, p. 222) observes that the irrational hostility towards the category is not supported by real empirical evidence and underestimates the positive impact of these operators in a crisis situation⁶². In 1997 Hotchkiss and Mooradian (1997) published a study on the US market analyzing the role of *vulture investors* in reorganizations and relating the results with the degree of influence of the *vulture* on the company to be restructured. Evidence showed that company performance improved when the *vulture investor* took control of the target or became the CEO. The study also shed light on abnormal market returns in the two days following the announcement of the intervention of the fund, demonstrating that markets usually appreciate this kind of intervention.

Another interesting element is linked to the taxonomy of the operators, proposed by Gilson (2001) on the basis of investment strategies and the objects of the transactions. The classification, taken up in different variations by most of the authors, divides the *vulture funds* as either *passive* or *proactive* (Gilson, 2001, p. 192.). The former buy shares or bonds of companies in crisis, or which have defaulted on their debts, in order to take advantage of mispricings in the markets⁶³. The latter try to take control and guide the *turnaround* personally⁶⁴ in order to gain from an effective restructuring. Perrini (1997, p. 27) adds a third category: *aggressive vulture funds*, meaning investors that acquire the majority of at least a class of debt with the aim of blocking any undesired restructuring plan⁶⁵. In this case other *stakeholders* often prefer to give something up rather than let the *turnaround* drag on.

Altman (2004 and 2006, p. 188) divides investment strategies in *distressed debt* into *passive* or *active*, where the latter are aimed at seizing control of the company or not. In the second category the difference lies in the expected return (20-25% for the *active/control*, 15-20% for the *non-control*,

⁶¹ The term plays on the similar sounds of the words *vulture* and *venture*. Critics of *vulture funds* sustain that while *venture capitalists* offer sustenance for the growth of companies, *vulture funds* feed on the few means left to companies on the verge of bankruptcy.

⁶² In fact, both banks and creditors can benefit from the chance to get rid of their distressed bonds or shares in a speedy way, despite the subpar price offered, depending on preferences and estimates about time value. Moreover, *vulture funds'* strategy consolidates large portions of debt which would otherwise be held by small bondholders, so easing and accelerating the restructuring and making the overall turnaround process more efficient. The same can also bring capital and business insight to the company and make good gains even if the nominal value is not reimbursed since the purchase was made at a great discount. As the original owners can recover their initial investment only in case of total reimbursement, they are less flexible.

⁶³ Passive strategy also includes the possibility of co-buying where other *vultures* have taken an active role in order to benefit from any improvement brought about by these subjects. The hope of passive funds is for a rapid gain; otherwise the strategy can be changed from passive to proactive.

⁶⁴ The American bankruptcy law allows, once a company has filed for Chapter 11, various alternatives: it can propose a reorganization plan which will need to be approved by the stakeholders assembly, the debt can be placed on a secondary market in the hope that it will be converted into stocks by the post-restructured company (loan to own investments), or it can finance new turnaround plans by underwriting capital increases and loaning capital under the form of debt. For an overview of failure in America see also Sandage, 2005; Skeel 2001

⁶⁵ Gilson (2001) defines this strategy as *bondmail*. He stresses the importance of the division in classes which allows for this kind of operation. Classes of creditors have to be homogeneous, both according to American law as well as in the Italian reforms.

versus the 12-20% for the *passive*), the average investment period (2-3 years as opposed to 1-2) and the degree of influence exercised on the *target* company (control even through a debt to equity swap, versus a moderate influence aimed at monitoring that the restructuring does not take unwanted directions).

The purpose of this paper is to provide a comprehensive overview of turnaround financing in Italy⁶⁶, meaning operations regarding distressed or troubled companies, carried out by professional private equity investors.

Sectorial data show that total investment in turnarounds is on the rise but still amounts to less than 5% of the Italian private equity market. Greater attention, however, seems to be paid by professionals and the media because of the great economic returns expected.

Rare, older works dedicated to the Italian market (Perrini, 1997; Danovi, 2001 and 2003) have shown not only the absence of dedicated operators, but also a general lack of interest for this private equity niche. Greater interest for the niche and the launch of specialized investment funds has been detected by a recent study by AIAF (2009).

This analysis springs from, and is compared to, a similar study carried out a few years ago (Danovi, 2001). In comparison to the situation surveyed in 2001, in the present study we try to investigate whether there has been an improvement by submitting a questionnaire⁶⁷ to a selected sample of professionals.

A significant change within the sector was expected due to both internal and external factors, a more developed private equity market and the reform of the Italian bankruptcy law *in primis*⁶⁸. The wider range of solutions offered by the new set of laws, indeed, aims at easing the successful restructuring of distressed companies.

However in mature markets, especially Anglo-Saxon ones, high segmentation and specialization are normal. For every phase in the life cycle of companies there is a correspondent set of specific investors. Whether in decline or in crisis, it is easy to find investors willing to buy out shares in order to check the chances for a turnaround or to acquire relevant portions of corporate debts in order to carry out arbitrages of value.

Italian empirical data highlight only a modest increase of total investment despite a growing interest toward the topic. Furthermore there is evidence that a few Italian private equity funds, originally set up specifically to turnaround, have now diversified their activity to target also more traditional deals.

⁶⁶ Even though these operations are usually carried out by heterogeneous subjects (private equity funds, single managers, industrial competitors), this study considers only the deals made by professional operators, due to lack of documentation of other deals as well as their episodic nature.

⁶⁷ This analysis was carried out at the end of 2006 through a questionnaire administered to a sample of operators active on the Italian market and covering 4 areas of interest: the degree of participation, opinions on the bankruptcy law reform and its impact on investment choices; risk/return and value/risk drivers and operative modalities.

⁶⁸ "The first part of the reform was enacted by the decree of March 14, 2005, confirmed by the Act of May 14, 2005. The second part was accomplished by the government decree of January 9, 2006, and took force July 16, 2006. The third part was enacted with the decree of September 12, 2007, and has been in force since January 1, 2008" (Panzani, 2009, p. 309).

The new legislative framework will probably cause significant, long-term effects; nonetheless, some delicate issues responsible for the slow development of the Italian market for distressed securities still remain unresolved.

THE SIZE OF THE ITALIAN MARKET

Compared to the international market of turnarounds, the size of the Italian private equity market is modest. Between 2001 and 2005 it never exceeded € 50 million and the number of operations remained between 7 and 14, from a minimum of 1.43% in 2001 to 4.17% in 2003 (AIFI, 2005 and 2006).

The value percentage fluctuated between 0.36% (in 2001) and 2.13% (in 2004).

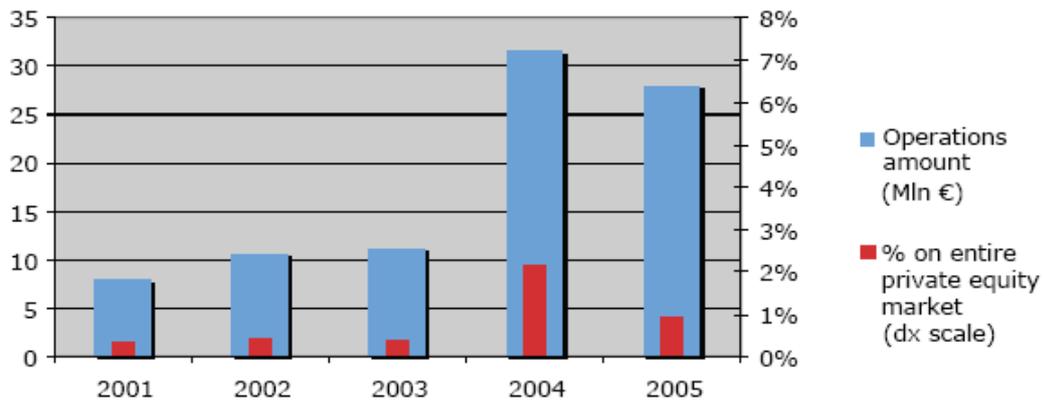


Exhibit 1: Value of turnaround investment Source: Own analysis on AIFI data

We can note that value percentages are consistently lower than deal count percentages; the latter are probably more indicative (3.61% versus 1.99%). It must be considered that the equity investment required to acquire companies in distress is usually very low, given the sheer size of the financial leverage already on the balance sheet of the target⁶⁹.

⁶⁹ EVCA does not offer details regarding the Turnaround-Rescue operations for the European market for 2006. In 2007 the investments for these deals were worth 0,1% of the 74 billion Euro of total investment (but 0.9% of the number of deals). The difference with the Italian market is probably attributable to different reclassification criteria (EVCA 2006 and 2007).

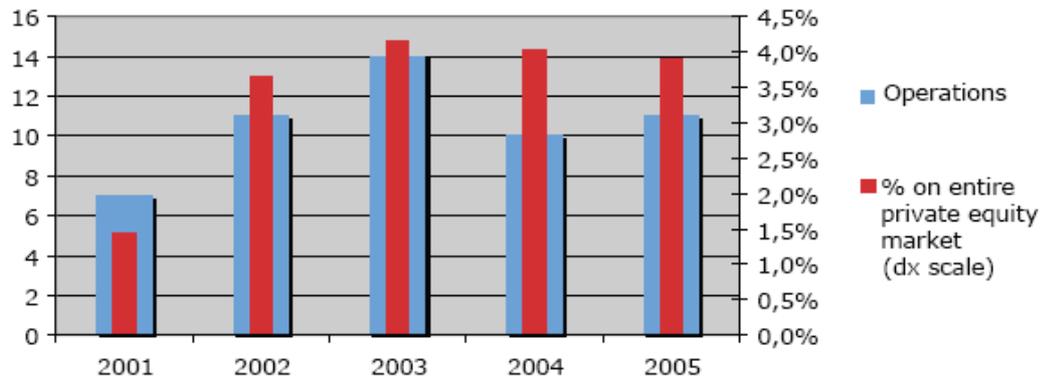


Exhibit 2: Number of transactions, Source: Own analysis on AIFI data

The abovementioned data were supplied by the Associazione Italiana degli Investitori finanziari (AIFI) which gathers the Italian *private equity* operators⁷⁰. During the past years the number of members grew and by the end of 2006, 105 companies were associated; 23 of which (22% of the total) also carried out *turnaround* operations.

Among these, only two were fully dedicated in 2006 to special situations: Atlantis Capital Special Situations and Management & Capitali. The former has been active for a number of years and mostly targets medium-sized companies. The latter was established in 2005 from a spin-off of DCB Web-Tech and listed since mid-2006, and targets medium-large distressed companies. In 2009 M&C announced a change of Mission and a relevant capital reduction. Others are companies, especially Investment Management Companies (SGR according to the Italian regulation), which invest throughout the entire life span of companies and can consider investments in distress, based on certain factors, for example knowledge of the sector, a strongly discounted price or specific interest for the deal.

Foreign funds (Oaktree, Cerberus, EOS Partners, Silverstar and KKR) occasionally carry out large sized operations in Italy; the same do private equity divisions of large investment banks as Goldman Sachs, Deutsche Bank or JPMorgan/One Equity partners.

⁷⁰ Regarding the evolution of private equity activities in Italy, see Gervasoni, 2002, pagg. 338 ss.; Gervasoni, 2005.

<i>Company Name</i>	<i>Turnaround dedicated operator</i>	<i>Classification</i>	<i>Location</i>
<i>Argy Venture Capital SGR</i>		<i>IMCO</i>	<i>Milan – Northern Italy</i>
<i>Atlantis Capital Special Situations S.p.a.</i>	X	<i>Holding</i>	<i>Milan – Northern Italy</i>
<i>Banca Intesa</i>		<i>Bank dept.</i>	<i>Milan – Northern Italy</i>
<i>BNL Gestioni SGR</i>		<i>IMCO</i>	<i>Milan – Northern Italy</i>
<i>BPC Investimenti SGR</i>		<i>IMCO</i>	<i>Genoa – Northern Italy</i>
<i>Centrobanca Sviluppo Impresa SGR</i>		<i>IMCO</i>	<i>Milan – Northern Italy</i>
<i>Deutsche Bank</i>		<i>Merchant bank</i>	<i>London – Milan</i>
<i>Doughty Hanson & Co.</i>		<i>Dept. foreign found</i>	<i>Milan – Northern Italy</i>
<i>Effusia Investimenti SGR</i>		<i>IMCO</i>	<i>Milan – Northern Italy</i>
<i>Efibanca</i>		<i>Merchant bank</i>	<i>Rome – Central Italy</i>
<i>Finlombarda</i>		<i>Investment company</i>	<i>Milan – Northern Italy</i>
<i>Friulia</i>		<i>Investment company</i>	<i>Trieste – Northern Italy</i>
<i>Gepafin</i>		<i>Investment company</i>	<i>Perugia – Central Italy</i>
<i>Impresa & Finanza SGR</i>		<i>IMCO</i>	<i>Brescia – Northern Italy</i>
<i>Investimenti Piccole Imprese</i>		<i>Investment company</i>	<i>Milan – Northern Italy</i>
<i>Investitori Associati SGR</i>		<i>IMCO</i>	<i>Milan – Northern Italy</i>
<i>Management & Capitali S.p.a.</i>	X	<i>Listed company</i>	<i>Milan – Northern Italy</i>
<i>MCC Sofipa SGR</i>		<i>IMCO</i>	<i>Rome – Central Italy</i>
<i>Palladio Finanziaria</i>		<i>Investment company</i>	<i>Milan – Northern Italy</i>
<i>SFIRS</i>		<i>Investment company</i>	<i>Cagliari – Central Italy</i>
<i>State Street Global Investments SGR</i>		<i>IMCO</i>	<i>Milan – Northern Italy</i>
<i>Sviluppo Imprese Centro Italia SGR</i>		<i>IMCO</i>	<i>Florence – Central Italy</i>
<i>The Carlyle Group</i>		<i>Dept. foreign found</i>	<i>Milan – Northern Italy</i>

Exhibit 3: Funds actively investing in distressed companies. **Source:** Own analysis on AIFI data

The sample is not complete because members of AIFI do not represent all of the operators on the market, but it can be considered an useful estimate since the analysis is aimed at established and systematic investors and not at “informal” ones.

A brief comparison is possible with data from the European Private Equity and Venture Capital Association (EVCA), which represents the diverse players in the private equity and venture capital market in Europe and had 1,151 members in 2006.

In this case, the percentage of operators investing in the turnaround in Europe was 30%. 198 of the 661 full members declared that they were interested in troubled companies, a higher percentage than in the Italian market.

AN EMPIRICAL ANALYSIS

Empirical research was carried out through a questionnaire of 20 questions administered to 84 companies considered to be among the main private equity operators in Italy⁷¹. The sample was chosen from the AIFI member list and integrated with a few foreign turnaround funds active in Italy.

The survey was divided into 4 parts regarding the degree of participation, the impact of the new bankruptcy law, sector opinions and operating technicalities. 21-28 operators answered the questions in the first three sections while the results from the fourth section, which examined more specific characteristics, was completed only by 11-12 operators. These results, even if not statistically significant because of the size of the sample, represent an important part of the universe of Italian *vulture funds* and offer interesting qualitative points of view regarding the operating aspects.

The degree of participation

First we attempted to find out how many operators were interested in financing or acquiring companies in a situation of serious economic-financial imbalance⁷².

This question has a qualitative, rather than statistical, significance: it is in fact very likely that there is a sort of self-selection between those who participated in the survey.

⁷¹ The sample was made up of the following companies: 360 Capital Partners, 3i SGR, ABN AMRO Capital, Advanced Capital SGR, Advent International, Aksia Group, Aletti Private Equity SGR, Alice Ventures, Alto Partners SGR, AME Ventures, Apax Partners, Arca Impresa Gestioni SGR, Argos Sodic SGR, Argy Venture Capital SGR, Arner Advisory, Atlantis Capital Special Situations, BA Capital Advisors, Banca Intesa, BC Partners, Berrier Capital, BNL Gestioni SGR, BPC Investimenti SGR, Bridgepoint Capital, BS Investimenti SGR, Candover, Centrobanca Sviluppo Impresa SGR, CFI, CI Partners, Cinvon, Clessidra SGR, CVC Capital Partners, Deutsche Bank, DGPA SGR, Doughty Hanson, Effusia Investimenti SGR, Efibanca, Euromobiliare PE, Fidi Toscana, Fidia SGR, Filas, Finanziaria senese di sviluppo, Finint & Partners, Finlombarda, Friulia, Gepafin, Impresa & Finanza SGR, Innogest SGR, Interbanca, Investimenti Piccole Imprese, Investitori Associati SGR, Kairos Partners SGR, Livolsi & Partners, Management & Capitali, MCC Sofipa SGR, Mittel, MPS Venture SGR, Natexis-Cape SGR, Nem SGR, PAI Partners, Palladio Finanziaria, Pentar, Permira Associati, Pino SGR, PM & Partners, Private Equity Partners SGR, Quadrivio SGR, Quantica SGR, R&D Advisory, Riello Investimenti, S+R Investimenti e Gestioni, SanPaolo IMI PE, SFIRS, Sigefi Italia PE, State Street Global Investments SGR, Strategia Italia SGR, Sviluppo Imprese Centro Italia SGR, Synergo SGR, Tamburi Investment Partners, The Carlyle Group, Unicredit Banca d'Impresa, Value Partners, VelaCapital, Vestar Capital Partners Italia, Virtus Capital Partners, Wise SGR.

⁷² In reality, comparing the answers with the AIFI data in the paragraph above, there is an overestimation of the number of those claiming to invest in turnaround projects regularly or occasionally. The aggregated percentage is 35.71% against 19% in 2001 and 22% of the data based on spontaneous declarations by AIFI members.

	2001	2006
No	81%	64%
Regularly	3%	7%
Occasionally	16%	29%

Table 1 Interest in conducting turnaround financing deals

It is nonetheless worth noticing that, in respect to the previous survey (Danovi, 2001), the number of those who claimed to engage in these deals occasionally or regularly has significantly increased.

Those who do not carry out turnaround deals explained that they were not part of their investment targets, because they were too risky or not among the kind of targets allowed by their own statute or bylaws. In a few cases, especially for banks, the difficulty has much to do with the unwillingness to contaminate regular activity with turnaround interventions carrying a different profile of risks and responsibilities. Many operators stressed that these deals require specific mentality, approach and know-how, which are different from their own. In a few cases it was highlighted that turnaround deals conflict with subjects who prevalently take minority equity positions and do not have the possibility to intervene directly in the restructuring. The same operators claimed that they do not have sufficient managerial skills to deal personally with these investments.

On the other hand, the dedicated operators declared that they managed 2 to 3 operations every year while others said that they occasionally completed from a minimum of one to a maximum of five. These numbers are in line with the data supplied by AIFI.

The impact of the new bankruptcy law

Empirical data highlighted that the majority of the interviewees did not intend to change investment targets nor plans to change its attitude towards turnarounds because of the reform of Italian bankruptcy law. Those who answered yes had the intention to increase the resources dedicated to these projects or to organize new *ad hoc* initiatives.

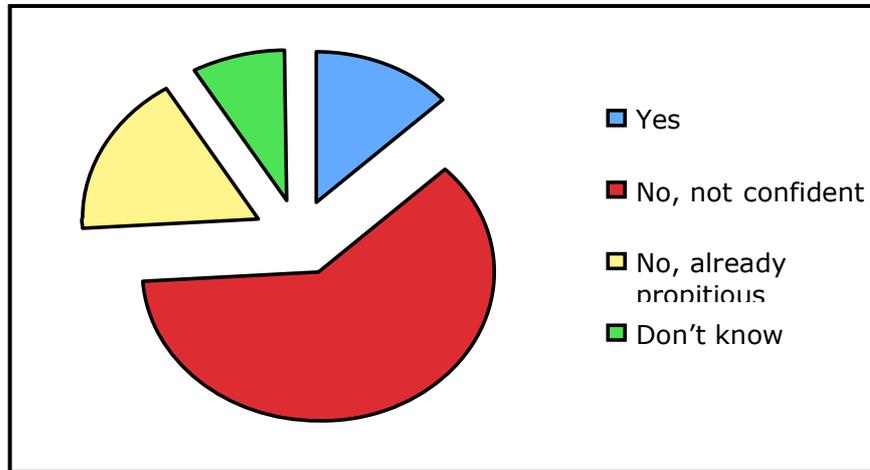


Exhibit 4 Sentiment of investors towards the reform Source: Analysis of survey data

Those uncertain were waiting to assess the actual impact of the new regulations and the way in which Courts would interpret the new tools provided for by the reform; in other words they were waiting to see if the new rules could be of any use to ease the structuring of turnaround investments.

Participants were also asked to indicate the main advantages and disadvantages of the new discipline.

In general, the bankruptcy law reform⁷³ is appreciated for the great flexibility of the Preventive Creditors' Settlement Procedure ("*concordato preventivo*")⁷⁴. A broader range of legal proceedings can be used to solve the crisis and interested parties are granted greater negotiational opportunities without the rigidity of the pre-existing regulations (Stanghellini, 2005; Verna, 2005; Presti, 2006; Proto, 2006).

⁷³ For a complete analysis of the Italian bankruptcy Law reform see Panzani, 2009.

⁷⁴ This is a procedure for resolving crisis situations avoiding bankruptcy, through the execution of an agreement between the debtor and the creditors, under control of the Court (Pajardi, 1986). The debtor submits to the Court a plan that can include:

- the restructuring of the liabilities in ways that can include, among the others, payments in kind or debt/equity swaps;
- the division of creditors into classes that are homogenous as for legal position and economic interest and that accordingly receive differentiated satisfaction;

The debtor usually remains in possession under an administrator and Court monitoring.

Non-guaranteed creditors have to vote on the motion proposed by the debtor, which is approved if accepted by the majority of creditors. In case class disagrees, the Court can impose a cram down and pass the motion.

On the other hand, the weak point of the new discipline is the lack of clarity regarding some regulations which might lead, at least in the initial phase, to excessive freedom of interpretation. It has also been pointed out how the first applications by the Courts were characterized by a certain heterogeneity. There is the hope in any case that these problems will diminish as time passes, thanks to official interpretations supplied by legislators and sentences pronounced⁷⁵.

It has also been noted that the reform has not addressed the penalties associated with bankruptcy crimes, which remain one of the most severe in the entire Italian criminal law. This has historically weighted on investors' willingness to get involved in distressed situations, although it has also been an incentive for the entrepreneurs to address the crisis in a timely fashion not to be later charged with criminally relevant misconduct.

US Chapter 11 has been held up as the example to refer to, even if the sentiment among operators is that the new Italian law is still inadequate at preserving the operating continuity of the debtor firm⁷⁶.

Turnaround: opinions about the market

The questions in this section are aimed at tracing a general picture of the market so as to define its actual and perceived risk-return profile.

First it was asked to state the expected returns deemed adequate for the deals, and the perceived risk. The majority of the operators indicated returns between 30% to 50% or (17% of the answers) lower, even though a third expected an annual IRR of 100%. In this second case the answer is probably due to a lack of experience on turnaround projects or to an overestimation of the actual risk. Those who habitually or occasionally carry out turnaround financing suggested, more reasonably, an average expected return of 40%.

High levels of returns are associated, as in economic theory, with high levels of risk, and in fact the interviewees confirm that turnarounds entail greater risk (81% of the answers) than traditional private equity investments. Only 14% of the interviewees found no appreciable differences in the level of risk⁷⁷.

Analysis of the risk drivers and of the characteristic of restructuring operations appeared to be many-faceted given the variety of answers supplied. Most prominent was the difficulty in: i) evaluating the real amount of debt of the target company; ii) rapidly understanding the industrial and organizational problems; iii) finding managerial capability for the *turnaround*; iv) modelling the behaviour of suppliers and creditors; v) estimating the time required to fix the P&L. Also mentioned were human resources, operational discontinuity, lack of consistency on the part of the Courts, commercial and industrial risks. Many of these problems could be

⁷⁵ See, among others, Arato, 2006. For a brief synthesis of the reform see also Danovi and Quagli, 2008, chap. 11.

⁷⁶ See Marano, 2006; Proto, 2006.

⁷⁷ An investor indicated that the risk is to be considered of a different sort (apparently greater but actually smaller), so meaning that turnarounds can be distinguished from other private equity deals since they bring about the rediscovery of a value that the company had already proven to be able to generate.

anticipated and diminished were it possible to conduct an accurate due diligence before consummating the transaction, but unfortunately in the context of distress investing this option is not always available to potential buyers.

A few elements are characteristic of turnaround operations or of companies in distress: uncertainty regarding the time needed to *break-even*, high indebtedness or financial imbalance, difficulties with other stakeholders.

It is worth considering the arbitrariness of Italian bankruptcy law and human elements. The former point is particularly relevant since it is merely external and cannot be influenced by the parties involved. Indeed the recent reform can be considered useful since it tries to limit the duration of the procedures. The latter is frequently underestimated but is fundamental, given that often the restructuring plans fail due to the conflicts which emerge between the parties involved⁷⁸.

In discussing the value drivers, the interviewees concentrated on three factors: a) the presence of competent managers, b) the characteristics of the target companies and c) the small amounts which, in the most fortunate transactions, one can happen to pay to acquire the business.

In the first place almost all of the operators cited under different aspects the importance of having managerial resources able to conclude operations of this type and often the possibility of finding capable management in the company was appreciated.

As far as the characteristics of the target companies are concerned, the starting point was unanimously deemed crucial. A sustainable competitive position, appealing structure and favorable development of the market, ownership of a recognized brand and the quality of the products were among the most appreciated characteristics.

Finally, a few operators were keen to mention the ability to buy the company at deep discount.

The investment strategy of the turnaround operators seems thus broadly classifiable as "value".

Operative modalities

The last section of the questionnaire surveyed a few operational aspects regarding the origination, management and consummations of deals. Only answers from those who stated that they at least occasionally dealt with investments in distressed companies were considered.

First we tried to understand the origin of the deal flow. All of the operators said that the deal was proposed by a debtor's consultant, who had greater experience rather than the debtor himself (indicated by a third of the sample)⁷⁹.

The percentage of those who think the proposal should originate (or does actually) from the fund itself is still quite low. This is a sign that the market is not yet mature and there is still room for growth.

⁷⁸ In previous articles much has been said on the relevance of the human factor. See Guatri, 1995.

⁷⁹ The decrease in the role of debtor as the originator is due to the greater role played by advisors.

Those who indicated “other” refer to banks, which are normally the largest holders of distressed companies’ debt and which, especially if concentrated, might be interested in a restructuring. In these cases independent advisors are given a specific mandate, or attempts are made to encourage the intervention of private equity funds to minimize the losses.

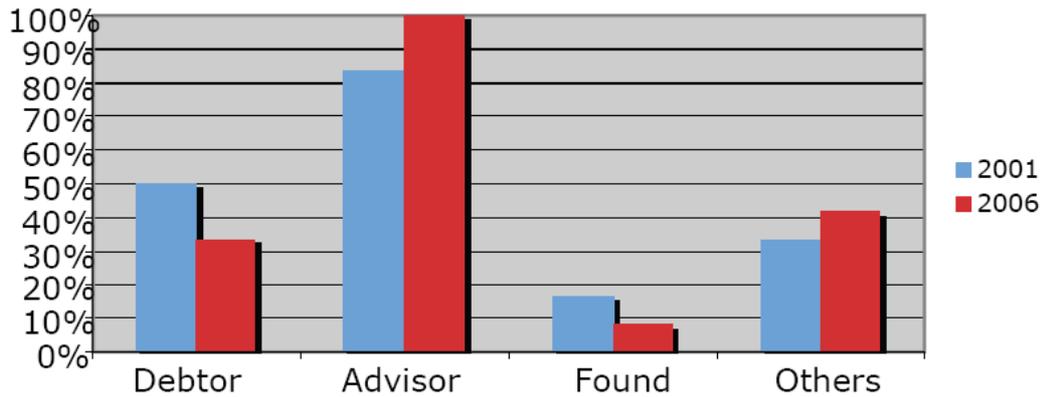


Exhibit 5: Origination of deals. Source: Analysis of survey data

Investors believe that they can manage 3-4 deals at the same time (55% of answers), 2-3 deals (18%), while 27% of the sample indicated 5-10.

Potential targets on scrutiny are less than 10 for 2/3 of the sample, even though many interviewees noted that the deal flow is up to 200 deals per year, 90% of which are discarded.

Given the weak competitive position and lack of strategic view of distressed companies, great attention is paid to strategic analysis.

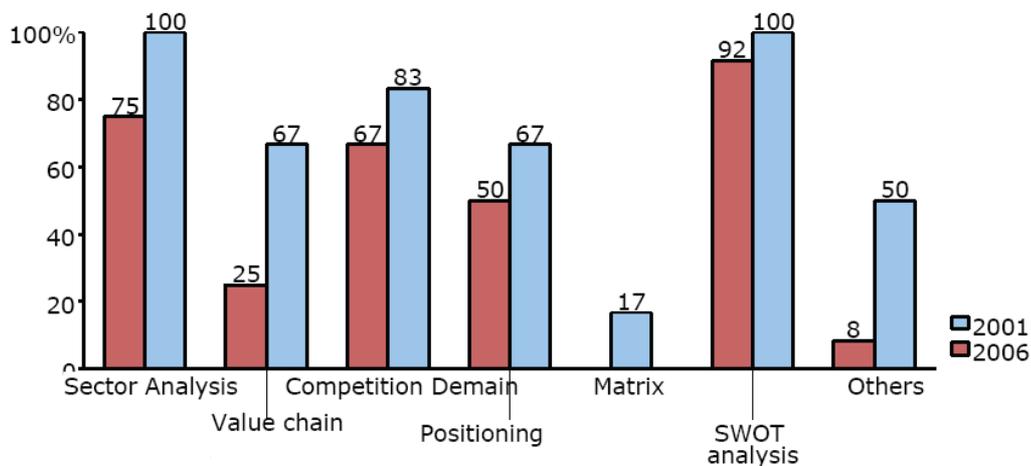


Exhibit 6: Models used for strategic analysis. Source: Analysis of survey data

Preferred methods, as already shown by previous surveys, were SWOT and sectorial analysis, followed by analysis of the competitiveness and positioning within the sector. A few interviewees also reported use of value chain models, but nobody mentioned matrixes. It seems that the attention paid to strategic analysis is somewhat minor.

As already seen in 2001, the proportion of those who believe that strategic analysis should be different from that carried out for healthy companies and those who disagree is roughly 5 to 1. The interviewees stressed that the differences are often minimal and not particularly relevant.



Exhibit 7: Contents of the business plan Source: Analysis of survey data

It is surprising that the business plan hardly considers strategic issues given that they should be of utmost importance in singling out the errors that led to the crisis.

The great relevance attributed to financial contents can be related with the turnaround operations typically carried out in the Italian Market: investors tend to look for companies with good business and bad balance sheets suffering from imbalances in the financial structure. Among investors it is commonly thought that the best operations, if not the only feasible, are those that do not require an actual rethinking of the business but only a financial restructuring.

	2001	2006
Strategic near-sightedness	67%	8%
Financial errors	83%	58%
Company handing down	100%	50%
Neglected company/not part of a core group	nd	75%

Table 2 Optimal causes of the crisis for restructuring

As far as the causes of the crisis are concerned, there is strong contradiction with abovementioned statements: for 58% of the interviewees, financial errors represent one of the causes of crisis on which external intervention can be more effective and are considered "easier" to resolve.

Only 8 % of the interviewees think a profitable investment is possible in case of strategic short-sightedness by a distressed company. There is, indeed, a strong feeling that to have success in this case, specific sectorial competencies are necessary, brought by companies operating in the same or in similar sectors.

The first choice for 75% of the operators are neglected or non-core companies within a diversified, often international, group. In fact, the mother company may decide not to try to recover losses incurred by a foreign, non-core subsidiary, and may therefore prefer to dispose of it, and benefit from its deconsolidation. This answer had not been given in the previous survey.

Given the peculiar structure of Italian capitalism and the problems still present in terms of governance, 50% of the interviewees are interested to troublesome succession.

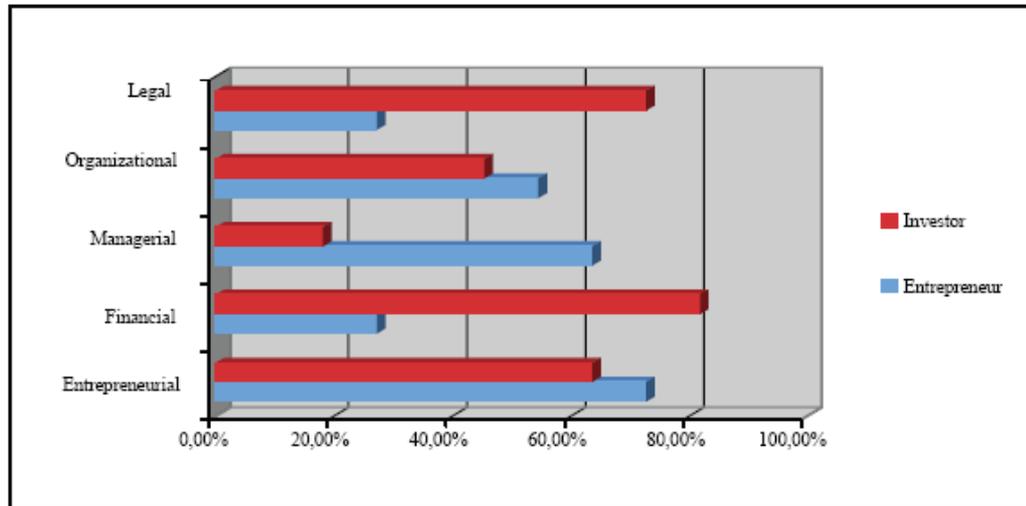


Exhibit 8: Skills required for turnaround, Source: Analysis of survey data

Interesting results are noticeable by comparing the skills an entrepreneur⁸⁰ needs to become an ideal counterpart and those necessary to invest in turnaround projects.

Besides entrepreneurial skill, the entrepreneur needs to have operating and managerial capacities, while investors need financial and legal know how. In an ideal situation, the entrepreneur is still useful for the recovery thanks to his knowledge of the business, while outside investors will manage financial and legal issues.

Finally, it is necessary to track how investors assess the value of the target. This problem is of primary importance given that the price paid for the acquisition or the possible increase in capital is the entry ticket for a vulture fund and it influences the restructuring strategy as well as disinvestment.

This is the question showing the greatest differences in the results compared to the previous survey. Today, in fact, most common methods for analyzing and evaluating troubled companies in crisis are patrimonial methods and multiples of comparables, which were indicated by more than half of the interviewees. A third indicated the DCF and a little more than 20% mentioned revenue based methods⁸¹.

⁸⁰ We have to remember that most of Italian companies (even public ones) are controlled by family or single entrepreneurs.

⁸¹ See Danovi 2000 and Danovi 2003, chap. 1.

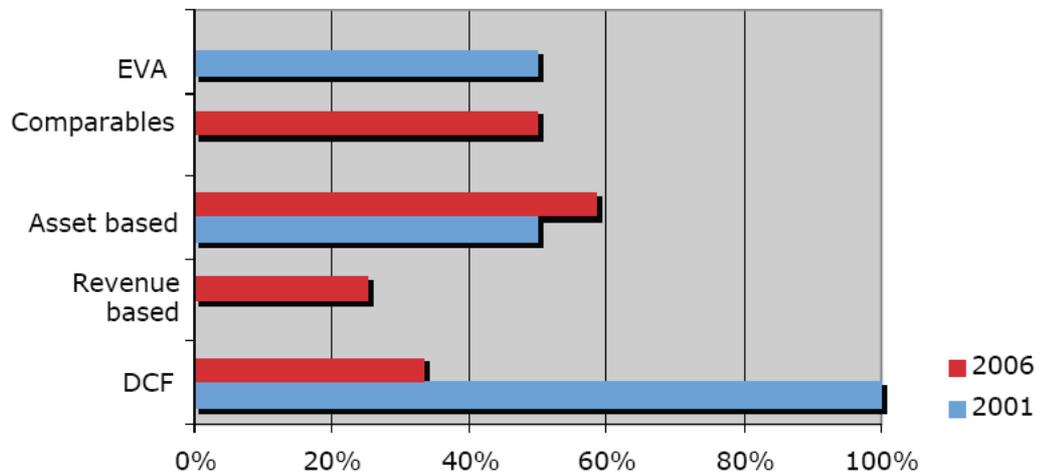


Exhibit 9: Valuation models. Source: Analysis of survey data

Compared to the previous survey, a greater dispersion of results is noticeable, as is the loss of consensus of the two methods like DFC (which was indicated by all of the interviewees) and EVA, today hardly applied by anyone. The great success of multiples of comparables can be explained within its broader application as a control method to be used with others. It is important to mention, in any case, the difficulties in finding a trustworthy sample of homogeneous companies.

There are no significant variations regarding way out channels. The drop of IPOs (17% against 67%) can be imputed to the excessive trust for these strategies back in 2001. Trade sales fell from 100% to 83%, as did secondary buyouts (from 67% to 50%).

CONCLUSIONS

Based on the data presented, it is possible to draw some initial conclusions, keeping in mind that the size of the sample (and of the Italian market) can currently provide more qualitative than statistically significant results. As mentioned, the aim of this study was to picture turnaround financing in Italy, through comparison with a previous survey from 2001, that represents the only comparable study in literature.

A relevant evolution in the sector was expected due to the passing of time and a series of external events (first and foremost the reform of the Italian bankruptcy law).

The data in paragraph 2 show that this market is still a niche: In 2005, it accounted for 0.91% of the total amount invested in private equity, and for 3.91% of the transactions. These numbers are in line with those of the five preceding years, which were slightly above average (0.83% of the resources invested, 3.43% of the total number of transactions).

So it can be affirmed that in 2006 there was no boom; the market remained stable with a slight increase. The number of completed operations is gradually becoming more significant, and experience is one of the necessary components for successful restructuring operations given their complexity.

In the period from 2001 and 2006, there were at least two strong Italian players, exclusively dedicated to special situations: Atlantis Capital, which, with Euro 84 million of committed capital, targets small and medium-sized businesses, and Management & Capitali, listed on the Italian stock exchange, with funds in excess of Euro 500 million and focused on companies with a turnover of more than Euro 100 million. Together these two investors should cover all the segments of the market, guaranteeing constant presence and good operative continuity. There were about 10 other funds which claimed to consider restructuring projects in the context of investments in already known sectors, possibly at discounted prices, and also some foreign funds, both specialized or not, attracted to Italy by private equity mega-deals and assisted by Italian advisors with a track record in large turnarounds. The different characteristics of the Italian market make it difficult to use foreign studies to make meaningful comparisons with the results of the research. What seems to be clear is that the current Italian players seem to prefer an aggressive strategy, as stated in Perrini, 1997 and only foreign investors in a few mega deals acted "passively".

It is clear from these results that a good level of funding is now available in Italy for turnaround investments. It is still a moot point, however, whether investors will shift their focus from simple financial rebalancing to industrial restructuring over a longer period of time

The bankruptcy law reform, whilst useful and necessary, does not seem to have been incisive enough to reshuffle the sector. Some actors stressed that they expected more, especially as far as the judiciary and criminal issues are concerned, and that the legal framework is still inadequate to preserve the going concern. Other problems are still unaddressed because of the labor regulations in Italy which make it difficult to drastically retrench a company. The case of Alitalia (the Italian airline) is a good example of these rigidities.

It is important to recall that the effects of the reform will be fully felt only in a few years' time when Court sentences and doctrinal orientations come to a shared and consistent view.

There are many obstacles to the expansion of the sector. The reforms have concentrated on the risks of these types of deals⁸²: There is, in fact, the widespread idea that *turnaround financing* carries high levels of risk and that it can be handled only by highly specialized investors with past experience and track record. Besides this, as an indirect consequence, many funds have statutes or bylaws which expressly exclude turnarounds or investments in projects deemed too risky⁸³. The landscape looks quite different from the US where even pension funds can invest (directly or indirectly through specialized funds) in distressed companies (Perrini, 1997).

Among other external factors, it is important to recall the market condition of corporate bonds, and that of distressed securities. In Italy, indeed, the market for corporate bonds is almost entirely represented by a few multinational companies (Eni, Enel, Telecom etc.). The situation got worse with the scandals linked to Cirio and Parmalat. Small and medium-sized companies find it is easier to finance themselves through banks rather than selling bonds on financial markets (also due to low ratings held down by the country disadvantage). This is even more

⁸² This problem was also mentioned in Danovi 2001, 896.

⁸³ This also makes a quick reaction to the changes in the market difficult. Before actually consummating turnaround transactions, indeed, an investor would need to set up a new venture expressly dedicated to such projects. At the present day, existing funds are unlikely to change their statutes.

pressing for companies with not-so-solid, or even just imbalanced, balance sheets. Current regulations and Central Bank reforms passed in December 2005 have made it more difficult for bonds to be traded. Therefore no active distressed securities market is available in Italy.

The growth of the turnaround sector is thus dampened by the illiquidity of the secondary market for distressed debt, which forces would be investors to carry out extensive negotiations with banks.

That said, we can try to picture the future evolution of the turnaround market in Italy. The next years are likely to see a growth both in the number of dedicated ventures and in the total amounts invested. The bankruptcy law reform might contribute to the attractiveness of the market for foreign investors. New opportunities are being created by the present recession and by the wave of corporate defaults. Interest by private equity groups is on the rise. The Italian landscape, however, will not easily mirror that of the US and a degree of underdevelopment will persist in the market. But there is the hope that an Italian-style turnaround financing sector can be created, characterized by the strong presence of banks and bearing (not too heavily, hopefully) the bulky weight of the courts. With respect to 2001, 2006 shows renewed and decisive interest for this sector of private equity.

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INFORMATION TECHNOLOGY APPLICATIONS AND CUSTOMER SATISFACTION IN BANKING

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Purpose - The paper has tried to identify the factors related to information technology which affects the satisfaction level of the customers of Indian Public Sector Bank. It has further tried to explore the intensity of each of these identified factors in influencing the level of customer satisfaction in the context of Indian PSBs.

Methodology - The research work which is based on primary data, has collected its samples from customers of Indian PSBs from different service segments. This was done following the concept of Convenience Sampling method. Data gathered has been analysed using univariate, bivariate and multivariate analysis.

Findings - It has been found that the performance of e-banking operations are below the customer expectation level for Indian PSBs. Customers are ready to accept information technology in their day-to-day banking activities but still they are not quite confident about the various performance parameters of e-banking.

Research limitations - The research suffers from geographical limitation as the survey has been carried out in and around Kolkata. Again, some of the aspects of electronic banking like the m-banking have been kept out of the scope of the research.

Practical Implications - The research work brings out that Information technology application has a very prospective future in Indian. Accuracy of e-transaction along with the ease of operation is what the customers are seeking for from the operations of Indian PSBs.

Value - The work will have a significant impact on the electronic banking operations of Indian PSBs from the quantitative analysis of the present customers' attitude towards banking.

Key words: E-banking, Customer satisfaction, Indian public sector banks, Customer centric dimension, anywhere anytime dimension

INTRODUCTION

The world is approaching to an era of information as a result of rapid technological advancement. But the life of people is becoming more hectic and they are facing a problem of time constraint for their day-to-day activities. Even for their very personal activities like financial ones (such as account management, bill payment, loan application and approval) they don't want to stand in queue for hours. At the same time when e-banking concept was introduced it revolutionized the whole banking system. Now the customers don't have to wait for hours to withdraw/ deposit money from/to bank, applying for loans, bill payments etc. They are using Internet facilities provided by banks to get their work done in minutes. This is supported by the fact that nearly 13% of world population is now online (showing a growth of 290% in past 7 years) of which 56% uses e-banking. Even in rising economies like India where

total online population is around 4%, 1% is getting benefit from e-banking and the number is rising quickly.

Basic expectations from any IT-enabled system

The highly competitive, complex and uncertain business environment of today is compelling the firms to find out ways to excel at containing cost, improving quality and innovating delivery system. Such emergent compulsions have fostered the growing use of IT by firms as a means to achieve excellence in performance. IT also helps in distribution of informational knowledge enabling the firms to disperse the decision making process down to operational levels. An IT-enabled process helps in gaining strategic advantage over the competitors by way of:

- Compression of time
- Ensuring accuracy
- Assuring ease of use
- Overcoming restrictions of geography / distance

Information technology and banking

E-banking is one of the few emerging areas in banking operations which has started with the rapid advancement of technology and the availability of Internet facility. It is time savvy, reduces the cost of operation (.01\$ to process an internet transaction as compared to 1.07\$ for an in-person transaction) for the banks, customer friendly but with a certain degree of risk attached with it. By going through the recent literatures and surveys it is found that e-banking is attaining mass popularity and it might be possible that one day will come when there will be no physical branch of a bank as all the transactions will be done online. Then the customer can dream of satisfaction to its peak as technology attains great height.

E-banking can be defined as an umbrella term for the process by which traditional banking products and services are directed to customers through electronic, interactive communication channels. E-banking includes the systems that enable its customers or individuals to access accounts, transact business, or obtain information on banking products and services through a public or private network, including the Internet. Customers access e-banking services using an intelligent electronic device, such as a personal computer (PC), personal digital assistant (PDA), automated teller machine (ATM), kiosk, or Touch Tone telephone.

Although Internet banks offer many of the same financial services, as do traditional physical banks, analysts view Internet banking as a means of retaining increasingly sophisticated customers, developing a new type of customer base, and capturing a greater share of depositor assets. Because Internet banks generally have lower operational and transactional costs than do traditional brick-and-mortar banks, they are often able to offer low-cost cheque-facility and high-yield Certificates of deposit. Keeping in mind these unique features, the strategic issues for e-banking are :

- Adequacy of management information systems (MIS) to track e-banking usage and profitability.
- Costs involved in monitoring e-banking activities or costs involved in overseeing e-banking vendors and technology service providers
- Design, delivery, and pricing of services which can generate sufficient customer demand
- Competition from other e-banking providers
- Adequacy of technical, operational, compliance, or marketing support for e-banking products and services.

As e-banking is less time consuming and easily available, it is attracting larger number of customers than traditional banking. But it is also being observed that customers are still reluctant to use e-banking because of the fear of hacking, losing privacy of account related information, technical uncertainty etc. Hence to overcome these drawbacks of e-banking, institutions have to consider the following:

- Security controls for safeguarding customer information
- Authentication processes necessary to initially verify the identity of genuine customers who access e-banking services
- Liability for unauthorized transactions
- Losses from fraud if the institution fails to verify the identity of individuals or businesses applying for new accounts or credit on-line

RESEARCH OBJECTIVES

This research paper is an effort to find the causal relationship between information technology and customer satisfaction in the backdrop of Indian PSBs and also to investigate whether information technology enabled Indian PSBs provide better customer satisfaction. Therefore, the research objectives of the study are:

- To study the usage of Information technology in Indian PSBs
- To identify those factors related to information technology, which are affecting the satisfaction level of the customers of Indian PSBs.
- To cluster the factors under several broad dimensions.
- To find out the relative importance of the factors within each broad dimension.

The observations of the study have been restricted to the IT applications in Indian e-banking scenario. In this study we have gathered data on customer expectation and their level of satisfaction in using the bank's ATM facility, core banking facility, banking website, website accessibility aspect, website design issues, ease of use of the banking website, website transactions, ease of e-transaction, accuracy and security aspect of e-transaction.

LITERATURE REVIEW

Considerable work has been done by Michael Hammer (1990), Thomas H. Davenport (1993), Gerstner (2003) in the area of application of information technology for business process reengineering. Also Jagadish Seth (1969), Oliver (1977-81) and Vavra (1997) have done significant work in the area of consumer behaviour. But not much work has been done in India in the area of e-banking. Nevertheless the works done by i) G.V. Chalam (2002) studied the growth and trend of IT application in banking sector, ii) V. Mehta (2003) researched the impact of IT on banks with productivity reference to J&K Bank Ltd., and iii) Peeru H. Mohamed (2005) carried out a study with six banks (HDFC Bank, ICICI Bank, Indian Overseas Bank, State Bank of India, Standard Chartered / ANZ Grindlays Bank and Citi Bank) from Chennai city to examine CRM in banking industry are worth mentioning.

In their work Avashti and Sharma (2000-2001) describes that advances in technology are set to change the face of banking business. Technology has transformed both the delivery channels used by banks in retails banking.

Bajaj (2000) highlighted e-commerce related issues due to adoption of recent IT. All over the world banks traditional business of taking advances and lending out the proceeds is in terminal decline. IT is also helping in cutting costs by providing cheaper ways to deliver products to customers. He concluded that electronic payment system are emerging and getting accepted in the market place.

Heggade (2000) did his work analyzing the banker-customer relationship in Indian PSBs. It is unique work since it analyses the wide range of customer services provided by the banks and the role of bank staff in its delivery.

Shapiro (2000) studied the effects of cyber space as evolving in ways that threaten privacy and other constitutional rights. It is eroding the liberty. It may end up controlling our lives in ways we have never imagined.

Also Shroff, T. (2004) describes how variety of services can be provided through the electronic channels by banks and financial institutions. According to him, employees are considered as a regular service-provider and they are the one who directly cares for the customers and their needs. The environment in the banking industry is going through rapid changes due to the impact of technology. The concept of 'Brick-and-Mortar' banking is gradually changing into the concept of 'Universal banking'. During the last decade, Internet and the concept of E-commerce, M-commerce, etc. have entered into the scenario of global banking and financial institutions. With the advent of technology in computing, development of Internet and networking technology and advancement of telecommunication facilities, global players like Citi Bank and GE Capital are now able to reach vast number of clientele spread geographically in different areas through limited branches they have set up. The bank employees have turned out to be a knowledge worker with improved productivity (along with higher compensation package), no longer bored with monotonous repetitive figure calculation and duplication of records.

Information technology in banking and customer centric management

Organizational functioning is the result of interactions among four variables: task, structure, technology, and people. (Leavitt, 1965). A change in work technology or task brings about changes in the others. The inter-relatedness of the functioning of the social and technological sub-systems of organizations and the relation of the organization as a whole to its environment have to be considered in this context. (Trist and Bamforth, 1951)

Indian banking is faced with major external challenges, which includes customer lifestyle changes, deregulation, globalisation, the emergence of new competitors, the impact of technology, and convergence in the market place between banks and other service providers such as insurance companies. The cost per transaction has declined as full service branches have been replaced in part by telephone service, ATMs and, increasingly the Internet. But overall transaction volumes have soared, making it more expensive for banks to meet customer demand and giving them more distribution channels to manage. Market research shows that many customers crave a relationship with their bank based on convenience, trust and intelligent proactivity on the part of qualified, accountable staff that know and value the customer.

The banks have adopted a fragmented approach to improving customer service, drawing on everything from psycho-demographics to branch redesign, loyalty schemes, personal banking, segmentation modelling, customer value management, cross selling, data warehouses, data mining, call centres and internet delivery. Customer Centric Management (CCM) is an integrated model for the retail banking industry. In this model the integrated management and use of customer information is the key. CCM focuses on knowledge acquisition (the acquisition and storage of customer data covering static, dynamic, financial and external data feeds), behaviour modelling (managing customer data to acquire new business and influence customer behaviour) and delivery (meeting customer expectations through product service proposition, delivery channel management and relationship management).

The bank must then be reshaped around customer priorities. For top performers, customer service quality is an obsession. Banks need to ask themselves what trapped value they are losing, why they are losing it, how they intend to capture it and how they should set about building a sustainable customer centric organisation. Overall, they should address the key question of the size of the lost opportunity, why the bank is not tapping that lost value and what it must do to get there.

Indian banking – then and now

Computerization of the workplace is beginning to gather momentum in India. Development of a sound and adequate information system has become a necessity to meet the new challenges of growth and diversification of the banking activities. The Banking Commission and the Reserve Bank of India have appointed various committees from time to time to study the situation. The Tandon Committee was appointed in 1974, which gave the guidelines to banks for the follow-up of credit, the Talwar Committee was appointed to look into the customer services in the banks, and the Goipuria Committee reported on accounting procedures and maintenance of records at bank branches. The Talwar Committee on Customer Service in Banks had recommended computerization of some functions to avoid delays in customer service.

To get a holistic picture of how the technology and its public acceptance has evolved over the years, we can refer to what some banking experts in India says. According to N Ravichandran (Professor, IIMA), the economic reforms have generated new and powerful customers (huge Indian middle class) as well as new mix of players (public sector units, private banks, and foreign banks). The emerging competition has generated new expectations from the existing and the new customers. Banks need to find out innovative ways of to deliver the existing products in an innovative and cost-effective way by taking full advantage of emerging technologies beside introduction of new products.

In the opinion of K V Kamath (MD and CEO, ICICI Bank) a combination of developments arising from technological advancements and a liberalized marketplace – disintermediation, blurring of traditional roles and boundaries, emphasis on shareholder value creation – has led to a transformation of the banking sector. The biggest opportunity for the Indian banking system today is the demographic shifts in terms of income levels and cultural shifts in terms of lifestyle aspirations of the Indian consumer. The prerequisite for capitalizing on these opportunities is technology as it is key to servicing all customer segments – offering convenience to the retail customer and operating efficiencies to corporate and government clients.

According to P S Shenoy (CMD, Bank of Baroda) currently in India, there are two types of customers – one who are a multi-channel user and the others who still rely on a branch as the anchor channel. The primary challenge is to give consistent service to customers irrespective of the kind of channel they choose to use. A retail customer selects a bank based on two criteria – convenience and relationship and would continue with a bank if it provides good service. For customers who are multi-channel users, consistent information across all channels is the key requirement of modern retail banking. Although online-only banking has been less successful than was anticipated, with several online-only banks running into difficulties, incumbent banks have started to offer banking services electronically.

P T Kuppuswamy (Chairman and CEO, The Karur Vysya Bank) says that consumers may be broadly categorized into corporate, institutional clients, high net worth individuals, and retail consumers. The challenge is how to service mass-market customers profitably. It should be the business imperative to understand a customer's expectations and appetite for risk. India will shortly become home to the second largest number of elderly persons in the world. The population of our elderly, at present estimated at 76 million, is expected to increase to 100 million in 2013. Therefore, banks should focus on unmet financial needs of the pensioners and senior citizens. Banks may have to go for mobile banking services for a cluster of villages.

The first steps towards mechanisation of banking operation were taken by installing what was known as ICL 40-column punched card equipment in late 50s or early 60s in the Calcutta office of the SBI for the reconciliation of inter-branch transactions. The trend of Non-Branch-Service Delivery in banking started with the growing popularity of electronic payment services in early 1990's with private and foreign banks. It started with Electronic Funds Transfers (EFT). Then, there were credit cards. ATMs and smart cards were next in the evolutionary history. Gradually, with the advance of computing technology, telephone banking and Computer Telephony Integration (CTI) became a powerful medium of delivering banking services. The banks are differentiating their services to the consumers to gain their loyalty. Technology is enabling banks to provide the convenience of anytime-anywhere-banking.

One of the eminent banking service providers the ICICI Bank kicked off online banking in 1996, followed by a host of other banks. But even for the Internet as a whole, 1996 to 1998 marked the adoption phase, while usage increased only in 1999, owing to lower ISP online charges, increased PC penetration and a tech-friendly atmosphere. At ICICI Bank, only 18.3 per cent of total customer transactions are online, says officials. At Standard Chartered, which has a registered base close to six hundred thousands for its Internet banking services-about 20 per cent of its retail customer base-around eight hundred thousands transactions are conducted every month. A survey by Internet and Mobile Association of India (IAMAI) also reveals that only four per cent of the 6,365 respondents approached conducted financial transactions online.

According to IDC (premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications, and consumer technology markets) estimate, there are over two million registered users for Internet banking in India which is 15 per cent of India's Internet user population but just 0.096 per cent of the total population.

Some important statistics regarding the usage of e-banking in India:

- From just nine hundred thousands netizens in 2001, the number is about to reach 100 million in 2007-08. 16 million Indians are already hooked on to e-banking till 2007 according to a recent IAMAI survey.
- 81 per cent use online banking only to view their account balances.
- Net banking is growing at 70 per cent per annum in terms of the number of users.
- 89% of bank consumers use ATMs.

According to the latest IAMAI Report on the online banking trends in India, the Internet population in India is 38.5 million and is set to grow to 100 million by 2007-'08. The number of customers who bank online is expected to grow over 16 million (inclusive of Internet and Mobile Banking) by 2007-'08. Today, their population stands at an estimated 4.6 million (not a complete representation). Interestingly, online banking in tier-two cities and towns – with tremendous growth potential - is reported to be at 26 per cent. The report identifies two trends among Indians for getting hooked onto Internet banking: a) for information transactions such as checking account balances, cheque clearance, and b) for high-end transactions like transfer of funds.

This growing number of Internet users and increase in financial activities online provide an opportunity for the banking industry to get a better understanding of this dynamic channel as an additional and mandatory touch point to serve their customers.

In a competitive market where services command market share, banks are constantly vying for customers. Banking has become a process of choice and convenience; better the service, higher the customer's inclination to a bank, and vice-versa, and Internet Banking is vital for both the industry and the customer. The future of banking would be in terms of integration, as people will have less time for banking. This is already becoming a reality with new-age banks such as YES Bank, and others too adopting a single-PIN, where the customer needs to use a single PIN number for transacting both online, and as well as offline – namely ATMs.

People will want to process more transactions on the Internet. There will be more activity in terms of applications and services on the mobile. Geography will not be an inhibitor any more as everything is executable on the net. In the Internet banking system, information is considered as an asset and so worthy of protection. However, the present system of authentication does not address the security aspect in full. This calls for an urgent need to acclimatize the whole system. According to Online Banking Association, there is a dual requirement to protect customers' privacy and protection against fraud. Another major issue is that of Data Protection and the need for a legal and regulatory framework. Currently, India has no law on data protection. Information security in e-banking presents two main areas of risk: preventing unauthorized transactions and maintaining integrity of customers' transactions. Data protection falls in the latter. Data protection laws primarily aim to safeguard the interest of the individual whose data is handled and processed by others. 'Interests' are usually expressed in terms of privacy, autonomy and/or integrity.

RESEARCH METHODOLOGY

As the intention behind the research paper is to find out the interrelationship of usage of information technology in Indian PSBs and its implication on the satisfaction level of the customers, we have identified the various IT enabled tools that are now being used by the Indian public sector banks and accordingly the expectations and current satisfaction level of the customers related to those IT enabled tools has been captured.

The population for the study can be considered as the customers of those Indian PSBs which are adopting the new technologies in banking. For this purpose customers of Indian PSBs banks which are implementing information technology were chosen and questionnaire was distributed. There were 28 questions altogether divided under two subheadings:

- Customer's expectation from IT enabled banking
- Customer's satisfaction with the present service level of IT enabled banking.

We have used five point Likert-type Scales, consisting of a number of statements which express either a favourable or unfavourable attitude towards the given object to which the respondent is asked to react. The respondent indicated his agreement or disagreement with each statement in the instrument. Each response is given a numerical score, indicating its favourableness or unfavourableness, and the scores are totaled to measure the respondent's attitude. In other words, the overall score represents the respondent's position on the continuum of favourableness-unfavourableness towards an issue.

It was decided that sample would be collected from customers of public sector banks from different service segments such as professionals (doctors, lawyers etc.), businessmen, IT officials, banking professionals etc. located in and around Kolkata. This was done following the concept of Convenience Sampling method. A total of 388 customers were given the questionnaires out of which 265 were usable the average response rate being 68.29%.

One of the prime objectives of this research study was to take direct feedback from the customers through these questionnaires. The customers were selected at random by the interviewer on the basis of judgmental method because the researcher (who is also the

interviewer in this study) felt they have more useful information related to the study. This sort of practice is well accepted in accounts and auditing process and as per the Auditing Practices Board "judgemental sampling is an accepted method of selection provided the auditors are satisfied that the sample is not unrepresentative of the entire population" (APB, 1993)

DATA ANALYSIS & RESEARCH FINDINGS

The data gathered on different aspects of IT enabled banking has been analysed using univariate, bivariate and multivariate analysis. The analysis has been shown under three categories :

1. Analysis on what the customers expects from IT enabled banking
2. Analysis on customer's present level of satisfaction
3. Analysis of the gap between the customer expectation and the present satisfaction level

SPSS ver 13.0 has been used to do the analysis on the data. The variables are identified from the questionnaire and the values against each answer of the questions are recorded against each variable.

The table 1 given below shows the variables and their description on which data has been collected and analyzed.

<i>Sl no.</i>	<i>Variable name</i>	<i>Description</i>
1	EATM	<i>Banks should have ATM facility</i>
2	ECBS	<i>Bank branch should provide core banking facility (i.e., you can access your account from any branch)</i>
3	EWBSTE	<i>Banks should have website</i>
4	EWBESY	<i>Bank website should be easily accessible</i>
5	EWSTRNS	<i>The bank website should support transaction</i>
6	EUSRFND	<i>e-transaction procedures should be user friendly</i>
7	ETNSSCUR	<i>e-transaction should be secured-do you agree?</i>
8	ETNSACRT	<i>e-transaction should be accurate-do you agree?</i>

<i>Sl no.</i>	<i>Variable name</i>	<i>Description</i>
9	HAVATM	Does your bank's branch have ATM facility?
10	SATM	Your satisfaction level with the performance of ATM services
11	HAVCBS	Does your bank's branch provide core-banking facility (i.e., you can access your Account from any branch)?
12	SCBS	Your satisfaction level with the performance of core banking facility
13	HAVWEBS	Does your bank have website?
14	SWEBACC	Your satisfaction level with the accessibility of the website
15	COFWEB	"I find it comfortable to browse the bank website for any product information"
16	TMSVWEBS	"I find it more timesaving (quickness to navigate from one link to another within the banks website) to browse the website than to go to the bank branch for a product information"
17	TOTWBSAT	Overall satisfaction level with the bank website
18	WEBTRANS	Does the bank's website support transaction?
19	TSAVTRAN	"I find it more timesaving to browse the website than to go to the bank branch for any banking transaction"
20	ESYTRANS	"I find the procedure to be difficult to transact over the website"
21	TRASSEC	"I feel the e-transaction to be secured"
22	SACCTRAN	Your satisfaction level with the accuracy in e-transaction
23	SWEBTRAN	Your satisfaction level with e-transaction services

Table 1: Name and description of the variables used in SPSS ver 13.0

Analysis on what the customers expects from IT enabled banking

Univariate analysis

The results of the answer to the questions on customer's expectation from IT enabled banking of public sector banks are shown in the bar chart below:

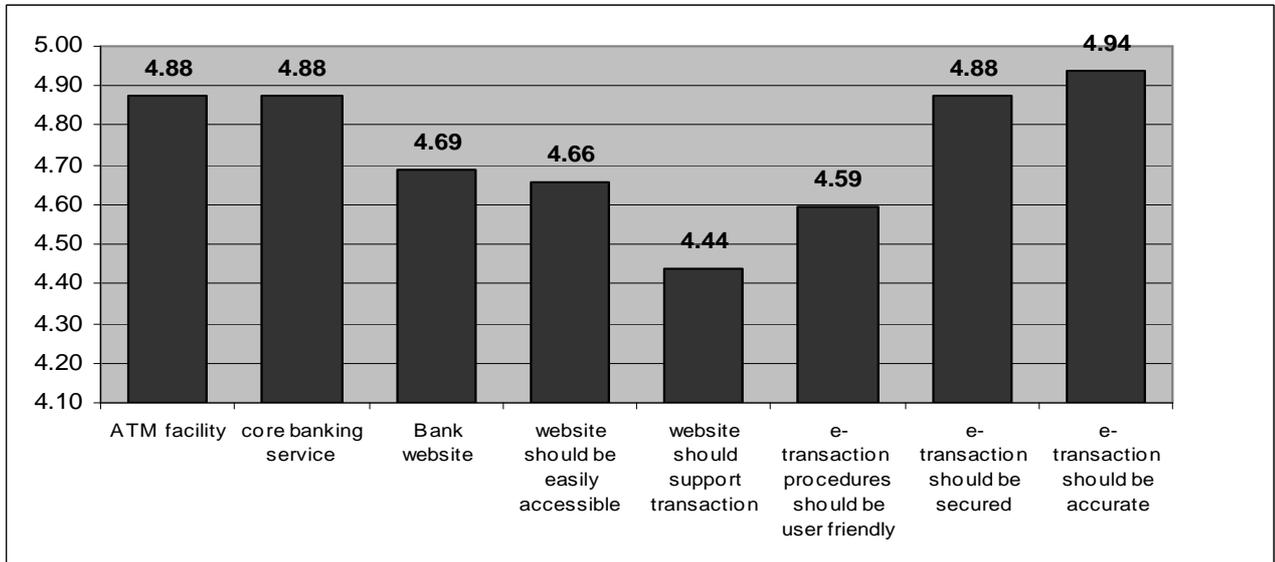


Figure 1: Customers' expectation from IT enabled banking

We can see from the above results that the customer expectation on most of the attributes of e-banking is very high. Whereas the accuracy of the e-transaction (mean value 4.94) gets the highest importance in customer expectation list, the security aspect of e-banking transaction, the availability of core banking facility and ATM facility (all having mean value 4.88) are the attributes of e-banking which customers consider next in terms of their importance.

The availability of bank's website (mean value 4.69) and the accessibility of the website (mean value 4.66) has more or less has the same degree of importance in the customers mind. The customer has attached much lesser importance to the user-friendliness of the e-transaction (mean value 4.59) whereas least importance has been given to the availability of the e-transaction facility (mean value 4.44) of the bank websites.

Bivariate analysis

	<i>EATM</i>	<i>ECBS</i>	<i>EWBSTE</i>	<i>EWBESY</i>	<i>EWSTRNS</i>	<i>EUSRFND</i>	<i>ETNSSCUR</i>	<i>ETNSACRT</i>
<i>EATM</i>	1.000	.143	.357	.522	.271	.175	.429	-.098
<i>ECBS</i>	.143	1.000	-.051	-.075	.116	.175	.143	-.098
<i>EWBSTE</i>	.357	-.051	1.000	.364	.484	.357	.357	.104
<i>EWBESY</i>	.522	-.075	.364	1.000	.304	.577	.522	.357
<i>EWSTRNS</i>	.271	.116	.484	.304	1.000	.323	.427	.185
<i>EUSRFND</i>	.175	.175	.357	.577	.323	1.000	.429	.206
<i>ETNSSCUR</i>	.429	.143	.357	.522	.427	.429	1.000	.293
<i>ETNSACRT</i>	-.098	-.098	.104	.357	.185	.206	.293	1.000

Table 2: Correlation matrix of customer expectation of IT enabled banking

From the above correlation matrix it is observed that none of the variables are very strongly correlated with each other and a moderate correlation exists between some of the variables. Though most of the variables are positively correlated with each other, some negative correlation can also be seen.

The variable *EWBESY* (ease of browsing banking website) and *EUSRFND* (user-friendly e-transaction process) are moderately correlated (correlation coefficient .577) but lesser degree of correlation (correlation coefficient .522) exists between the variables *EATM* (banks should have ATM facility) and *EWBESY* (ease of browsing banking website), which again is similarly correlated (correlation coefficient .522) with *ETNSSCUR* (e-transaction should be secured). This reflects that customer perceives them in terms of their convenience and security. A transaction based website is a part of customer expectation list as the correlation coefficient of .484 exists between the variables *EWBSTE* (Banks should have website) and *EWSTRNS* (The bank website should support transaction).

Analysis on customer's present level of satisfaction

Univariate analysis

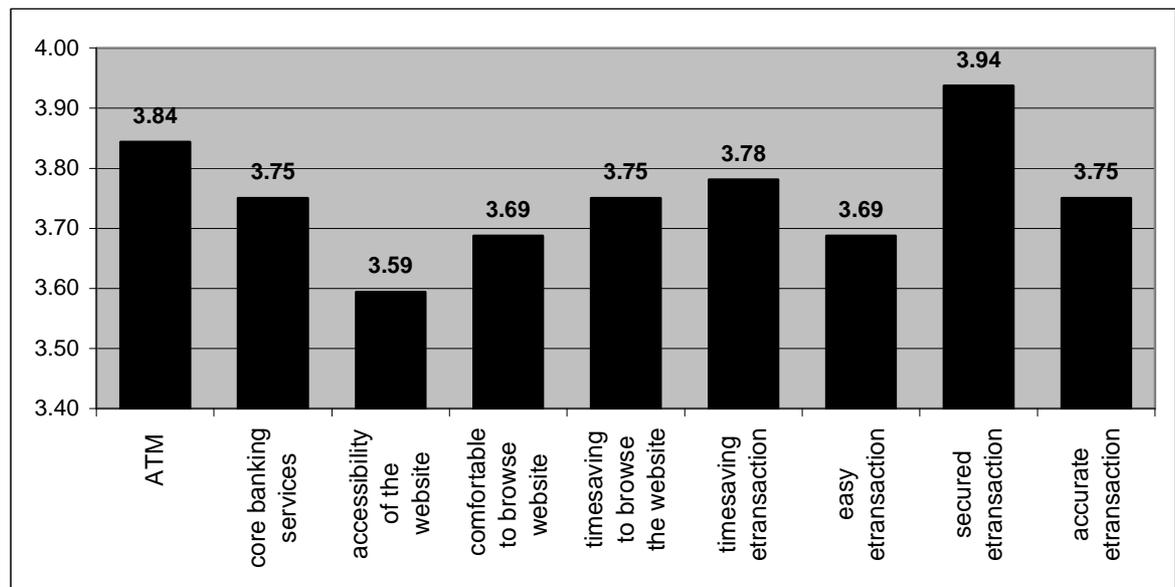


Figure 2: Mean value explaining present level of customer satisfaction

The above result reflects that the present level of customer satisfaction is not too high as the mean varies from 3.59 to 3.94 on different attributes and all values are less than 4 in a 5- point Likert scale. But their satisfaction on the security of e-transaction is highest (mean value of 3.94). Next in order comes their satisfaction from the use of ATM facility and time saving through e-transaction (mean value 3.84 and 3.78 respectively). These two variables are transactional in nature and give convenience to the customer.

Satisfaction level out of the usage of core banking facility, timesavings for using banking website and accuracy of e-transaction have a same mean value of 3.75. All these attributes reflect the operational nature of e-transaction.

But their satisfaction level on both the comfort aspect of browsing bank website and the ease of e-transaction is having the same mean of 3.69. Lastly the customer satisfaction level for accessibility of website is the lowest (mean value 3.59) and can be considered a very moderate one.

Bivariate analysis

Here we shall try to analyze the data from two perspective :

1. From the non-transactional aspect of e-banking as shown in table 3
2. From the transactional aspect of e-banking as shown in table 4

	<i>SWEBACC</i>	<i>COFWEB</i>	<i>TMSVWEB</i>	<i>TOTWBSAT</i>
<i>SWEBACC</i>	1.000	.360	.032	.590
<i>COFWEB</i>	.360	1.000	.673	.481
<i>TMSVWEB</i>	.032	.673	1.000	.375
<i>TOTWBSAT</i>	.590	.481	.375	1.000

Table 3: correlation matrix of customer satisfaction related to banking website (non-transactional)

This correlation matrix reflects how different factors influence the total satisfaction level of customers while using banks' website for other than transactional purpose. Here we find that the variables *COFWEB* (comfortability to browse the bank website) and *TMSVWEB* (timesaving to browse the website) are strongly correlated with a correlation coefficient of .673. The variables *SWEBACC* (accessibility of the website) and *TOTWBSAT* (overall satisfaction level with the bank website) are also sharing a strong correlation (correlation coefficient .590). The correlation coefficient between the variables *COFWEB* (comfortability to browse the bank website) and *TOTWBSAT* (overall satisfaction level with the bank website) being .481 reflects that they are less than moderately correlated.

All other variables are not significantly correlated and can be assumed to be independent of each other. This is important because each independent variable may call for independent banking policies.

	<i>TSAVTRAN</i>	<i>ESYTRANS</i>	<i>TRASSEC</i>	<i>SACCTRAN</i>	<i>SWEBTRAN</i>
<i>TSAVTRAN</i>	1.000	.654	.115	.275	.221
<i>ESYTRANS</i>	.654	1.000	-.016	.543	.441
<i>TRASSEC</i>	.115	-.016	1.000	.071	.243
<i>SACCTRAN</i>	.275	.543	.071	1.000	.723
<i>SWEBTRAN</i>	.221	.441	.243	.723	1.000

Table 4: Correlation matrix of customer satisfaction related to transactional website

The above correlation matrix, related to the transactional aspects of bank's website reflects the following:

- Correlation between the variables *SACCTRAN* (satisfaction with the accuracy of e-banking) and *SWEBTRAN* (satisfaction with e-transaction services) is quite high. The value of the correlation coefficient being .723.

- The variable TSAVTRAN (time saving attribute of web browsing) is moderately correlated to variable ESYTRANS (easiness of transaction through web), the correlation coefficient being .654.
- The variables SACCTRAN (satisfaction with the accuracy of e-banking) are also moderately correlated to the variable ESYTRANS (easiness of transaction through web), the correlation coefficient being .543.
- Security aspect is more or less considered to be an independent factor as this attribute is not showing any considerable correlation with any other variable

The above correlation matrix also brings out the fact that accuracy contributes most to the total satisfaction of e-transaction. Easiness contributes next and security and time saving aspect respectively comes to the last in order.

Multivariate analysis

	<i>Component</i>	
	<i>1</i>	<i>2</i>
<i>TSAVTRAN</i>	.900	
<i>TMSVWEBS</i>	.844	
<i>COFWEBS</i>	.789	
<i>ESYTRANS</i>	.730	
<i>SWEBACC</i>		.831
<i>SCBS</i>		.787
<i>SATM</i>		.701
<i>SACCTRAN</i>		.628

Table 5: Rotated Component Matrix of satisfaction out of IT enabled banking (Considering values above 0.5 only)

Table 5 shows the result of factor analysis. The component matrix was rotated using varimax rotation method with Kaiser Normalization. Two factors were extracted through above method that converged in 3 (three) iterations.

Factor loadings above .25 were considered to be significant.

Factor 1 comprises variables namely TSAVTRAN, TMSVWEBS, ESYTRANS, COFWEBS, indicating *Customer Centric Dimension* of Indian e-banking sector.

Factor 2 comprises variables SWEBACC, SATM, SCBS, SACCTRAN indicating *Anywhere Anytime Dimension* of Indian e-banking sector.

Analysis of the gap between the customer expectation and the present satisfaction level

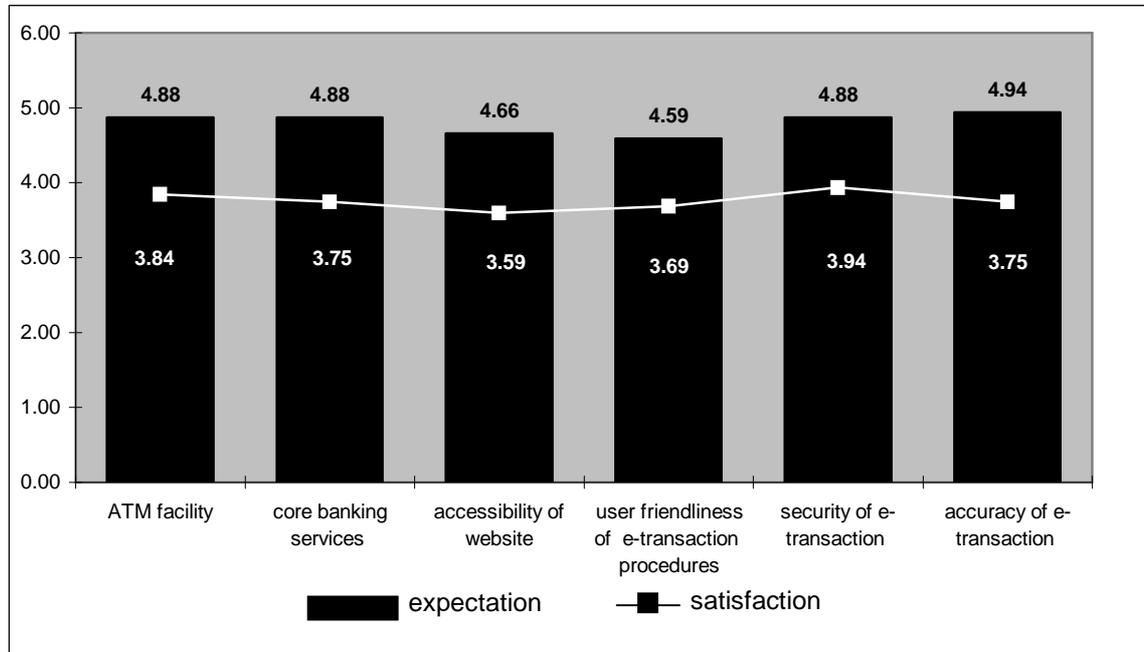


Figure 3: Mean value of customer expectation and present level of customer satisfaction on different attributes of e-banking

In the above bar and line graph, we have plotted the mean values of customer expectation and customer satisfaction level on certain common attributes of IT enabled banking services. The observations from the analysis of above graph are presented below:

- The present satisfaction levels of customers on attributes of e-banking as shown by the line are below their expectation level on the same attribute as shown by the bars.
- The difference between the mean value of the expectation and that of satisfaction related to user-friendliness of e-transaction is the least where as it is highest incase of accuracy of e-transaction.
- The difference between the mean value of the expectation and that of satisfaction in the security attribute of e-transaction is second lowest followed by differences regarding attributes of ATM facility, website accessibility and CBS facility in ascending order.

DISCUSSIONS AND CONCLUSIONS

The univariate, bivariate and multivariate analysis on the gathered data reveals the following facts about the variables related to the usage of information technology in Indian banking:

Significantly high mean values of customer expectation on different attributes of IT-enabled banking reassures that information technology application has a very prospective future in Indian PSBs.

High expectation on accuracy and security aspect of e-transaction and least expectation on the availability of e-transaction reflect that though customers of Indian PSBs are ready to accept information technology in their day-to-day banking activities but still they are not quite confident about the performance of e-transaction.

From the correlation analysis of the e-transactional website it can be seen that a high level of customer satisfaction calls for a very high level of accuracy of e-transaction.

Moderately high correlation between easiness of e-transaction and time saving aspect of e-transaction reveals that easy procedure of transaction ensures less time for transaction. Same is applicable to any non-transactional website where the comfortability to browse the website ensures time saving also.

From the multivariate analysis, we can identify the IT related factors which are affecting the satisfaction level of customers of Indian PSBs and they can be clustered under two major dimensions: *Customer centric dimension* and *Anywhere anytime dimension*.

1. *Customer centric dimension* comprising of variables (in accordance of their comparative weightage within the dimension) such as
 - timesaving to browse the e-transactional website
 - timesaving to navigate through the web site for product information
 - comfortable to browse the bank website for any product information and
 - easy procedure to transact over the website.
2. *Anywhere anytime dimension* comprising of the variables (in accordance of their comparative weightage within the dimension) such as
 - accessibility of the website
 - performance of ATM
 - performance of core banking facility and
 - security aspect of e-transaction

The satisfaction level of the customer on all attributes of e-banking are less than their expectation level reveals that the performance of e-banking operations are below the customer expectation level. Hence the bank has to take steps to improve their performance and also bring new technologies for banking operations.

Hence in the conclusion we can say that though application of information technology in Indian banking has made significant inroads to their customer base, it still lacks in several dimensions of its performance. Therefore this needs to be taken care of by significantly improving the operational efficiency and introduction of innovative technologies. One of the future technologies, which Internet Banking could witness, is of Biometrics approach as against

the password authentication system of individual's claimed identity. It needs to be recognized that such high cost technological initiatives need to be undertaken only after the viability and feasibility of the technology and its associated applications have been thoroughly examined.

The Internet and its underlying technologies will change and transform not just banking, but also all aspects of finance and commerce. It represents much more than a new distribution opportunity. It will enable nimble players to leverage their brick and mortar presence to improve customer satisfaction and gain share. It will force lethargic players who are struck with legacy cost basis, out of business since they are unable to bring to play in the new context.

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DECISIONAL MODELS FOR COMMUNICATION-MIX

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Purpose - This paper's purpose is to outline a taxonomy of different approaches to the company communication and to define the factors on the basis of which a firm can adopt an approach rather than another.

Design/methodology/approach - Analysis of the major existing literature and the following exploration of the most successful case history.

Findings - Although marketing-mix has been studied and analyzed in all its possible aspects and implications, rather less attention has been paid to communication-mix.

Practical implications - The taxonomy of different approaches with which a company can do communication gives an useful support to the management to guide the definition of them through the analysis of the factors that guide the company decisions towards the adoption of an approach rather than another.

Originality/value - In a developed economic system the traditional marketing approach isn't sufficient anymore. New and more updated tools are necessary to better reach consumers.

Keywords: communication mix, taxonomy of communication models, marketing approaches, decisional models, factors of choice.

INTRODUCTION

In the economic systems of the most developed countries, customers always accept with less passivity products, communications and, more generally, business supplies: they are getting more and more aware, informed, demanding, and, ultimately, active, thanks to the dissemination of global information technology and web applications. The "active" behaviours of these consumers appear in at least three separate phases, i.e. during the consumption, the purchase and, often, during the specification of the company's supply.

During the consumption phase, consumer experience cannot be "pre-packaged" and managed solely by the producer and/or distribution channel; in effect, customer experience is an "experiential platform" of benefits that individual consumers aggregate by itself, independently and according to their preferences. In doing so, consumers build their product and their consumption experience (Carù and Cova, 2003, pp. 200-201; Resciniti, 2004, pp. 100-101).

Even when purchasing, the "active" consumer wants experiences, as products or services are not only chosen for the functional benefits they provide, but also for the symbolic values that they communicate. IKEA represents a good example of this situation: in every store each physical element is useful for setting customers at ease and allowing them to experience the chance of being "architects" of their home. Finally, today's consumers can build the offer through the control of elements that belong to the marketing mix that is traditionally managed by firms (Cova, 2007, p. 52). For example, the famous watchmaker Panerai counts among its bestsellers two watches that have been produced thanks to suggestions expressed by potential buyers on

an Internet blog. In this way a new product has been developed in an innovative manner which is far more different from the traditional concept test on the products, in which a company tries to understand the degree of acceptance of a given offer already specified in its essential elements. Conversely, today's consumers have to get involved since the creation of the offer's basic elements.

The consumer's ability to participate at various moments in which take places the relationship between supply and demand - that is in the processes of consumption, purchase and determination of the offer itself - emphasizes the need for companies to provide offers that both in their technology and in the intangible value, allow consumers to feel as an active subject, that participate in the building of the relationship with a particular offer.

The evolution of consumers and the fact that competing products are getting more and more similar from a purely technical point of view, lead to say that creating and maintaining a sustainable and defendable competitive advantage can be realized with an offer strongly characterized by immaterial component.

It becomes therefore crucial to draw attention to the intangible elements of the offer. Only by giving due weight to both tangible and intangible aspects of the offer, it is possible to meet the needs of "new" consumers and, therefore, to achieve a defensible and sustainable competitive advantage.

Brand represent a fair balance of both tangible and intangible assets, if it is not simplistically viewed as the trademark of the company, which is useful to distinguish its products and differentiate them from those of competitors. Instead brand has to be viewed as a specific relationship established with a given market for the achievement of a specific offer.

Brand, thanks to its specific characteristics, is the key factor with which the company can meet the needs of "new" consumers. Indeed, in the most comprehensive meaning, brand has to be regarded as the combination of both the material components (product, packaging, price, etc..) and the intangible value of the company's supply. Among the latter a key role is played by the brand identity, that is the set of associations linked to the brand that a company intends to create and deliver to its consumers. But the existence in the business supply of both tangible elements and intangible value is not a sufficient condition to create the relationship between demand and offer. Alongside these factors, a key role is played by the commercial communication, which is the main tool for guiding this relationship. The aim of this article is twofold: on the one hand to propose a theoretical framework about the different approaches to the company communication and, on the other hand to identify the factors on the basis of which a firm can adopt an approach rather than another.

Given this introduction, this paper will first outline the different forms of communication mix and then the factors through which companies can choose the best approach to be taken.

TAXONOMY OF COMMUNICATION MODELS

Traditionally, in marketing, finding the communication mix consists in a series of sequences: the analysis of the competitive sector, the segmentation of the demand, the choice of the reference target and the positioning. The process ends with the specification of the operative

actions which took places into the decisive variables that compose the marketing mix. Consequently the development of communication follows the same process at the end of which the company decides the different tools to use to achieve the set goals and the reference target as well.

The aforementioned process however, can be developed also in a parallel and not sequential way, thanks to the creation and the use of a database which contains information about customers. In particular, a database allows to study in real time the customer base, to immediately find the subjects to whom address and to define the more suitable actions to satisfy individual needs. In substance a one to one marketing approach takes place. For a company, in order to adopt an advanced marketing model it is fundamental to establish a relation with consumers; in this way the company obtain data that after will merge into a database. It is thus evident that the data collection is a fundamental activity .

Between this two approaches which can be considered "borderline cases", there are "intermediate cases" in which, because there is no customer database, traditional forms of communication are used. For example, advertising can be useful for bringing the consumer to use direct communication tools typical of new media. In this case the main activities are developed through the web, which is not only used to spread messages to the reference target, but it is also an important instrument to create a company database. All other media and communication tools are used to support on-line activities; of fact their duty is to push the communication recipient to visit the company web site and, then, to transfer his data to the company.

In the end is possible to identify another approach to company communication which is defined as "unstructured" because there are no analysis before company decisions. In this approach a major role is played by the set of relations that the businessman has established with his customers. All communication activities are settled to enforce those relations, and a great attention is given to public relations.

Starting from the most "crude" way of communication arriving to the most advanced one, the identified taxonomy consists of four different approaches:

1. unstructured communication
2. traditional communication
3. intermediate cases focus on new media
4. advanced direct marketing

In the following sections each single approach will be examined in more detail.

Unstructured Communication

This approach is called "unstructured" because in this case analysis that precede company decisions are not carried out. In this approach a key role is played by all relations that the businessman has established with individual customers (usually few). All communication activities are aimed at strengthening these relations, therefore public relations act as a preferred tools.

It is easy to think that the unstructured approach characterize only the small entrepreneurial businesses which lack the capital to carry out market analysis or the use advanced CRM would be completely meaningless. This is only partially true; the world of insurance organizations, for instance, is characterized by very big groups acting internationally. It would seem obvious, therefore, to expect the reality of this large-sized organizations to operate under the logic of the most advanced forms of communication, supported by specific analysis; referring to the institutional aspect of communication, this is also true. Examining the functioning of a typical branch of the insurance group though, it is easy to find out that they operate according to unstructured approaches of communication.

Customer management is in fact typically entrusted to the insurance underwriter, which must also be responsible of the seeking for new names. It is in this last phase that the approach is "unstructured." New clients are in fact sought through public relations activities, more or less direct knowledge. If the first contact ends successfully, then the agent will set up an appointment for a subsequent face to face meeting, in which the ability of the single insurance consultant to communicate on an interpersonal level plays a fundamental role.

The recruitment of new customers as well as the activities for retaining those already acquired, is therefore based on the logic of "unstructured" communication, where the key role is played by all the relationships that the consultant has established with its individual customers. Obviously, at the source of all there has to be quality products and a really solid company. This is why on an institutional level traditional communications approaches (with media such as print or television campaigns) are usually used. But the institutional campaigns only allow the insurance companies to be known by the indistinct mass of potential customers, who afterwards will be identified and targeted by single consultants through direct contacts driven by unstructured way of communication.

Traditional Communication

In traditional approaches to marketing, the specification of the communication mix requires a series of preliminary analysis that starting from the analysis of the competitive pressure leads to the definition of the marketing mix.

Specifically, the process consists of a series of sequential steps: the analysis of the competitive sector, the segmentation of demand, the choice of the reference target and the positioning (Kotler and Keller, 2006, p. 310).

The analysis of the competitive pressure of an industry is substantiated in the analysis of the major competitive forces of enlarged competition: existing competitors, potential entrants, substitute products, suppliers and customers. These components determine the nature and intensity of competitive pressure, thus affecting the profitability of the company. According to this analysis the company decides the best strategies to use for dealing with competitors.

Secondly, always based on the traditional approach, there is the analysis of the demand to identify the main needs expressed by it, since consumers increasingly have needs that can hardly be satisfied by a single offer. This means that the company have to segment the market in different groups of consumers with similar needs and identical reactions to the same marketing activities.

After having segmented the market, the company should select the groups of target consumers. Among the possible options, the company offer can be addressed to all the consumers of the market with a segment by segment differentiated offer, to meet the needs of different groups of consumers; or with a standardized offer, thus ignoring the differences between the segments. Alternatively the firm can decide to serve only some of the market segments; or it can just focus on one segment, acquiring a dominant position.

Finally the company defines the positioning of its offering, that is the position which it intends to fill within the individual segment. The objective pursued by the positioning is to be able to occupy a position clearly defined in the minds of the consumers, which is distinct from that held by the competitors' offerings.

The process ends with the specification of the operational actions, which took places into the decisive variables that compose the marketing mix. Therefore the definition of communication follows this same process after which the company chooses different instruments to achieve, effectively and efficiently, whether the set goals or the reference target.

In general, every company defines the set of most appropriate tools to use and identify how best to integrate them in order to convey messages that are consistent with each other. In this way it can maximize the results from the running of communication.

The communication realized according to this approach is traditional, with the aim of reaching the widest possible target. It is therefore a mass communication that uses primarily the most traditional instruments (e.g. advertising), used at the expense of more innovative ones (such as viral and guerrilla marketing).

The process described above is a consolidated business practice for two main reasons. First of all, it is adopted by companies leading their market, thus also the followers follow this approach in an attempt to improve their results. Secondly, it is so accepted by having become an integral part of corporate culture.

This process is not free from limitations : in particular, there are problems from an organizational perspective, in fact the analysis supporting the whole model are performed by members of staff. Consequently, in most cases they are not used neither by those who should decide business strategies, nor by the subject of line functions. This represents a considerable waste of resources that are used in performing analysis useful in the establishment of optimal business strategy and business offers, but which in reality are completely ignored.

Intermediate Cases Focus on New Media

This model is characterized by the central role assumed by the new media linked with the development of information technology. In this case, the main activities are carried out through the web, which is not only used to convey messages to the target audience, but it is also an important tool for creating the company's database. All other media and communication tools are used to support the on-line activities; their objective in fact, is to push the recipient of the communication to visit the corporate website and, subsequently, to transmit their data to the company.

An excellent exemplification of this approach is provided by Pirelli with its new way of communication: Pirelli Film, a series of short film released only through the website www.pirellifilm.com. To publicize the site, Pirelli has advertised them through television, print media, billboards and banners. In them it was clearly indicated the web site address , thus the latter form of communication (that is advertising) playing a supportive role to the first (the web). To create a database of prospects to whom, in future, one to one communication activities could be addressed, on the web site a form has been created. Through this form feedback about the present film can be collected and suggestions for the next ones can be made .

Advanced Direct Marketing

The analysis at the source of the definition of the several operational activities are performed by some companies in a parallel way instead of sequentially. Indeed in the traditional process of marketing, competitive analysis, segmentation, selection of the segment in which to compete, positioning and definition of operational activities are carried out according to a sequential logic: namely, only after having completed a specific analysis is possible to start the following one , until the conclusion of the whole process. There are, however, other companies that perform the same analysis seen before in a parallel way, through the establishment and use of a database containing information about clients. In particular, the database allows the real-time study of the customers, to identify immediately the person to whom the communication have to be addressed to and to define the most suitable actions to optimally meet the needs of each single client. Essentially, it is an implementation of a one to one marketing approach.

The creation of a relationship with final customers in order to acquire data that then have to flow into the database is essential to best ensure that the company could adopt a model of advanced direct marketing. Therefore becomes important to the business the activity of collecting data that must be gathered at every point of contact between the company and its customers. For the company it is then crucial to identify all opportunities for interaction with its customers, which may be helpful in acquiring the information. These contact points may be either "physical", in which there is a direct interaction between customers and company personnel which have to be trained in data collection, or "virtual", in which the customer interact with information systems that have to be designed to collect data and to send them to the database.

When data are collected into the database, it should not only contain information relating to the single settled transactions, but it has also to be able to increase the knowledge about individual customers and their behaviours. It is therefore important that the data contained into the database are correct, without duplication and up-to-dated; only in this way, in fact, the performed query will be as accurate as possible.

When the analysis of data contained into the database is completed, the company can implement targeted communication actions, able to meet each customer's needs. The communication process does not end with the implementation of the operational actions, however. In this particular model it is indeed important that the company establish a long-

lasting relationship with its customers. This is essential to continuously feed the company database, thus providing an increasing amount of information about individual customers. In this way the company can plan activities which are best suited to customer needs, managing consequently loyalty.

In practice, therefore, the process described above is a nonstop one, because once made up the first operational actions it starts again from the interaction with customers to gather further data needed to refine the subsequent actions.

FACTORS OF CHOICE

The analysis of the four approaches outlined in the previous section allows to define a taxonomy of different ways in which a company can carry out the communication activities.

Taxonomy of communication models does not have to be considered a tool that ends in itself but as a useful support for management to guide the communication actions. In order to develop this role, the description of the different marketing approaches adopted by a company is not enough though. It is necessary to find the factors that orientate company's choices towards the adoption of an approach rather than another. In general, these elements can be very different, among which the intensity of competition, number of transactions, data acquisition cost, level of differentiation of the product/service and company dimension.

Intensity of competition

A first factor that may be useful for choosing between different approaches is the intensity of competition in the market where the company competes. If the competition is low, the firm may adopt an unstructured marketing approach, because it knows in depth the needs of customers. The company, moreover, should not act taking into account the actions implemented by competitors.

The more intense the competition becomes, the stronger will be the stimulus to the adoption of innovative approaches, directed to the creation of a database, and then to the analysis of data contained in it. In this case, in fact, the company must try to obtain a competitive advantage that is based on factors not easily imitable by competitors. Among these factors there are the relationships established with individual customers; relationships that, thanks to the high degree of customization, can not be imitated by competitors. Specifically, the adoption of a one to one communication approach in markets characterized by high degree of competition allows companies to take shelter from the actions of competitors.

Number of transactions

The second factor is related to the business target market. Thus, if the company has the chance to conclude a large number of transactions, then the development and maintenance of a customer database are feasible operations. In this way the company can develop targeted actions, likely to meet the needs of each customer: therefore it may take an innovative approach to marketing. In the opposite case, when the number of clients and transactions is small, the creation of the database would be virtually useless because the company would spend considerable resources to support the initial investment, without any consequential adequate

payback. This stems from the fact that to get meaningful information that are useful in decision making, it is often necessary to have a database that contains significant amounts of data. It seems clear therefore that this approach can not be applied in the case in which the company, during an accounting period, performs a small number of transactions concluded with a few customers. In this case it is preferable the adoption of an unstructured approach that, thanks to public relations, enables the company to strengthen relationships with individual customers.

Data acquisition cost

Considering the amount of transactions that have been concluded, the company have also to take into account the cost associated with the acquisition of data. Indeed, it has convenience to create a database when that cost is low. For example, large retailers are using innovative approaches to marketing since the cost of acquiring data about their customers are provided through the use of loyalty cards. If this cost was high instead (because such data should be acquired from outside organizations), the company would be more oriented to traditional marketing approaches with which to carry out mass communications.

Level of differentiation of the product/service

Even the differentiation of product/service plays an important role in the choice of the best communication approach to be adopted. In fact, if the product/service is poorly differentiated (as in the case of mobile telephony provider), the companies should seek to distinguish themselves from their competitors by using intangible values such as brand or relationships with customers. In this case it will be preferable to adopt more innovative approaches.

If instead the product/service is highly differentiated from that of the competitors and if the elements of differentiation are appreciated by customers, the company may opt to more traditional approaches. McDonald's, the world's largest chain of fast food, is a good example in this regard. With its traditional hamburgers, cheeseburgers, fries and soft drinks, McDonald's serves around 47 million customers every day with which it communicates through extensive advertising campaigns : in addition to more traditional media like television, radio and print, the company also uses billboards and sponsorship in sport. However, it is television that has always played a central role within the company's marketing strategy.

Company dimension

A final factor of choice is the size of the company and the level of complexity of its internal structure. In small companies where decisions are all taken by the entrepreneur, it is more likely that the communication approach would be an unstructured one. In this case, it can indeed be assumed that the entrepreneur carries out its activities by developing a direct and personal relationship with its customers; therefore, the unstructured approach will be useful in strengthening these relations. On the contrary, if the firm size is significant, decisions are taken by multiple actors; then it is likely that more complex approaches are adopted. Moreover, it must be taken into account that companies are increasingly multi - product and multi - business and they address themselves to many customers having different needs and requirements.

Consequently it would be more difficult to use public relations to establish a direct and personal relationship with individual customers.

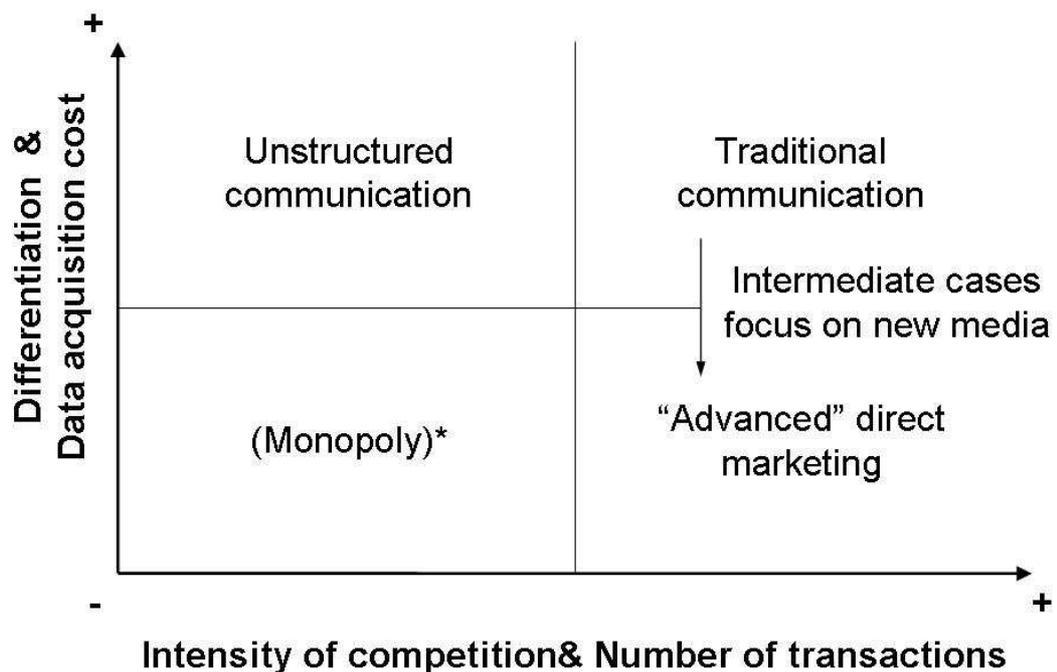
In summary (as shown in Figure 1), a sector characterized by intense competition, a high number of transactions concluded by the company, low cost for the data acquisition, a limited differentiation of products/services, a large-sized company characterized by a complex corporate structure, are all factors that can push a company to adopt innovative communication approaches, based on the creation and analysis of a customers database. This does though not exclude a company having any of the foregoing characteristic from the adoption of more traditional approaches or approaches aimed at the creation of the database itself.

Factors of choice Approach	Intensity of competition	Number of transactions	Data acquisition cost	Differentiation level of the product/service	Company dimension
Unstructured communication	LOW	LOW	HIGH	HIGH	SMALL
Traditional communication	MEDIUM / HIGH	HIGH	HIGH	HIGH	MEDIUM / BIG
Intermediate cases focus on new media	MEDIUM / HIGH	HIGH	MEDIUM / LOW	MEDIUM / LOW	MEDIUM / BIG
“Advanced” direct marketing	HIGH	HIGH	LOW	LOW	BIG

Figure 1 – Approach / factors of choice matrix

Where the analysis of the five factors discussed above leads to prefer a specific approach to communication rather than another, it should be added that these same factors tend to change during the life of an organization: if initially a company were more likely to adopt an unstructured approach, while when its size and transactions settled during a financial year increase, the traditional approach will be better placed to meet the business needs.

A further increasing in size and transactions, as well as an intensification in competition accompanied by a lesser capacity of diversification will then push the organization to adopts an advanced direct marketing approach, passing first through the intermediate forms of communication focused on new media.



* particularly referring to intensity of competition and differentiation

Figure 2 - Evolution of the communication approach

Figure 2 shows the change in the communication approach due to the changing of the main factors of choice.

In the lower left corner of the matrix there are monopolies, which deserve a word apart because in these particular market conditions, companies have no need to attract customers: being the only producers of commodities in the market, the only way to owned one of their products is through them: there is no choice at all. When the monopoly ends, however, companies will find themselves in a condition of traditional communication and then they can think of moving to the advanced direct marketing approach.

DISCUSSION AND CONCLUSIONS

The communication-mix is a set of different approaches that companies can choose from to reach their customers by communicating with them in the best possible way. The taxonomy of different approaches with which a company can communicate represents a useful support for the management to guide the definition of them through the analysis of the factors that guide the company decisions towards the adoption of an approach rather than another.

Studies on the intangible elements of the offer appear to be particularly relevant at a time when competing products are getting more and more similar from a purely technical point of view.

It is, therefore, surprising that theories of communication-mix have received little attention in the marketing literature and, in particular, the factors that guide the company decisions towards the adoption of the best communication approach to be adopted.

This study has attempted, in part, to fill a gap in the literature by proposing a theoretical framework of decisional models for communication-mix. In delineating the communication-mix, it is argued that it is composed by four different approaches: unstructured communication, traditional communication, intermediate cases focus on new media, and advanced direct marketing. It is further proposed that the different factors of choice can be very different, among which the following five: intensity of competition, number of transaction, data acquisition cost, level of differentiation of the product/service and company dimension.

This framework offers important theoretical implications for marketing research as well as a practical support to the management to guide the definition of the communication approach.

Still, concept of communication-mix seems to be worth further elaboration. More research is necessary to empirically validate these considerations and perhaps to extend the concept of communication-mix and, what is more important, the subsequent decisional factors of choice.

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ASSESSING DEVELOPMENT POTENTIAL OF YACHTING IN THE DODECANESE ISLANDS- GREECE

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The paper examines the criteria for marine tourism development in the small islands of Greece. The study is grounded on the current and potential contribution of yachting development to the local economies of these islands, and proceeds to an analysis of the major factors that can contribute to the evolution of marine tourism in the case of Dodecanese islands.

The methodology that is applied, in order to satisfy the research aims is the Analytic Hierarchy Process (AHP). This is a flexible and functional tool of investigating multi-criteria decision making problems that allows the determination, the evaluation and comparison of major criteria by stakeholders.

The case study is the potential of yachting development in the smaller and least developed islands of the Dodecanese. The selection of this case is based on the characteristics (i.e. size, population, morphology, and geography) and the economic and tourist growth indicators of these islands.

The quantitative research analysis is based on a sample of data that have been collected via a questionnaire that have been answered by a selected sample of key experts and stakeholders. These data help to evaluate the extent that several factors (that in the context of the present paper have taken the form of criteria and sub-criteria) might determine yachting development and influence the achievement of the desirable objective of marine tourism development in small islands.

The article is structured as follows: Section 1 is referring to maritime tourism, Section 2 clarifies the aim of the research, Section 3 presents the methodology used in the study, in order to give priorities to the development of yachting in insular regions involving local experts, Section 4 specifies the case study, Section 5 presents the Criteria for Yachting development, Section 6 exhibits the empirical results obtained from small Dodecanese islands. Finally, Section 7 summarises the main conclusions drawn from this research..

Keywords: Maritime Tourism, Yachting, Analytic Hierarchy Process, Expert Choice, Dodecanese.

MARITIME TOURISM

In the maritime tourism concept, all tourist, recreational and leisure activities which take place in the marine environment of a tourist destination country which offers hospitality to tourists, are included. These activities include stay, restaurants and food shops in general, as well as any kind of infrastructure and upperstructure works such as marinas, enterprises and equipment, which are necessary for tourist development. The strict definition of the term "maritime tourism" directs us to the quest of a more direct and longer lasting contact of the tourist with the sea. The contribution of shipping infrastructures and means to the realization of this relationship is decisive and includes on one hand ports, marinas, and vessel shelters along the sea routes and on the other the vessels themselves, as an integrated system fully incorporated in the activities of cruising, coastal shipping and recreation. With the participation

of shipping, maritime tourism acquires its real content, since it enables the tourist to truly experience the marine environment. In the absence of shipping, the tourist's approach to the coast through other transport systems (by land or air) and his stay in coastal facilities (hotels, etc) weaken his interaction with the sea and hence distort the concept of maritime tourism (Lekakou & Tzannatos, 1998).

According to Miller M., and Auyong (1993 and 1991) Maritime Tourism also includes recreational activities like maritime excursions, coastal and maritime eco-tourism, cruises, swimming, fishing and diving. It is unquestionable that matters concerning the impacts of maritime tourism on island societies, the natural borders of which are determined by the sea surrounding them, constitute a significant field of research (Hall CM, Page S, 1996).

Maritime tourism is widely regarded as one of the world's largest industries of contemporary tourism, with a significant participation in the tourist economies of the countries which have developed it (Hall M., 2001: 601-648) with tendencies of continuous and rapid growth (Webe S. and Mikacic V., 1994: 71-74., Pollard J., 1995: 61-77., Kim S., and Kim Y., 1996: 46-53., Orams M. 1999). Yet, the sector is characterized by a great difficulty in the recording of statistical data for the precise estimation of its real size. Characteristically, the exact number of tourists that select maritime tourism remains unknown (Miller M., 1993:193-199).

The yachting industry faces rapid growth world wide and the demand for marina space is increasing . The development of the industry is also evident by the growth in the production of pleasure crafts and mega-yachts in particular. The benefits of developing the yachting industry seem to outweigh the costs to a great extent and nations around the world are now investing significant amounts in initial or additional infrastructure in an attempt to meet the increasing demand (Caribbean, Croatia or Turkey to name some of them). The islands or the insular regions offer various alternatives to yachting industry mainly, marinas or shelters/ storage and repair, wintering and catering (SCBD, 2005)

A significant factor in the development of yachting is port infrastructure and the possibility of supplying special services to passengers of yachts in leisure.

Leisure ports form a highly dynamic sector whose expansion has knock down direct and indirect effects in numerous economic activities (agriculture, energy, intermediate goods, capital goods, construction, transport, hostelry, sales services, non sales services) (Perez-Labajos, Blanco, 2006).

Leisure crafts can hardly be serviced by the existing harbor installations after establishing harbor zones equipped with all suitable facilities. Only just a few more marinas fully equipped will be necessary. However, the upgrade and modernisation of harbor infrastructure is the most critical factor in order to further enhance the maritime tourism in Greece (Gouloumis *et al*, 2002).

Maritime tourism can be sustainable and converted into a strategy of development for small islands, as long as it is in harmony with their social, economic and cultural dimensions. This means environmental and economic sustainability as well as social cohesion.

Greece is a leader in maritime tourism for a large number of yacht management, chartering and consultant companies giving the country a primary role in the yachting sector worldwide. The Greek market of professional Yachting was created in the 70s, when Greece was pioneer in

the world to establish the legal framework for the operation of companies exploiting recreational vessels. This market began with just 25 vessels which initially flew the Greek flag and in the beginning of the 21st century was the largest in the world with approximately 4,000 vessels and referring to 40,000 charters annually by approximately 80 charter companies offering 7-day charters on the average (Diakomihalis, 2007b)

Nowadays, comparing the western Mediterranean countries, Greece falls short, not so much in the number of mooring spots but in the quality of the services provided (Diakomihalis M., Lagos D., 2008:872). Ports are not only a constituent of national transport systems, they also should be treated as parts of tourism's infrastructure (Miotke-Dziegiel J. 2007:486).

Yachting in Greece is very popular among both Greeks and foreigners and seems to have an upward trend. The 20 marinas in Greece today, offer a capacity of roughly 7,400 mooring posts, while an additional 3,000 boats can be accommodated in ports throughout the country (Diakomihalis 2007b). The existing network of marinas and shelters of tourist vessels, though it needs further development and improvement, provides choices of marine tour which can offer the visitor beyond enjoying the sea routes, the acquaintance with many regions of insular and continental Greece (Diakomihalis, 2007). An important feature of modern ports as maritime tourism centers is a strong pressure on connections with port's city, through railways, roads, parking places, telecommunication etc (Miotke-Dziegiel J. 2007:487).

Polyester boats covered most of the Greek yachting market, 59.6 percent, followed by inflatable boats with 34.8 percent. Sailing boats made up 5.6 percent of the market. Current market trends and conditions show that polyester boats will record an increase as people are increasingly opting for this type of boat. The inflatable boat market will also rise, while the sailing boat market should remain stable or move slightly higher.

The demand of leisure craft is of foreign origin at approximately 95%. The Europeans (mostly the Germans and the French) prefer sail boats while the Americans prefer motor boats. The Greek tourists who are considered demanding clients of high-income salary, usually charter bareboats as well as manned vessels such as motor yachts or motor sailers. According to the data provided by "Kyriakoulis Mediterranean Cruises Shipping S.A" for the year 2004, 29% of the company's clientele originated from Germany, 11% from Italy, 9% from Great Britain, 9% from France, 8% from Holland, 7% from Austria, 5% from the Scandinavian countries, 3% from the Czech Republic, 2% from Switzerland, 2% from Belgium, 1% from the USA and Australia. 12% comes from other countries, while 3% originates from the Greek market (Diakomihalis (2007b).

Yachting's contribution to the main values of the Greek economy is relatively small; it is, however, particularly important to the economy of the islands and to coastal destinations. For many destinations, it constitutes one of the main economic activities of their residents. Local income and employment created constitute the most important effects of maritime tourism activities on the local economy. Yachting contributes to all major values of the local economy of the regions that have developed this specific interest tourism. (Diakomihalis, Lagos, 2008)

AIM OF THE RESEARCH

The study aims at revealing what factors are fundamental in facilitating yachting progress towards a sustainable development. The aim of this research conducted in the summer of 2007 is the identification of the factors- criteria that can contribute to the development of Maritime Tourism, especially of yachting in the small islands.

These factors are determined after the review of the limited literature and experts' and academics brainstorming sessions and are considered as criteria that affect the achievement of the desired goal. The research methodology used is the "Analytic Hierarch Process", a flexible and useful tool of multiple criteria decision-making (MCDM) that allows the determination, the evaluation of criteria as to the degree they participate in the development of the specific tourist product and the hierarchy of criteria by the involving experts. In this case, the involving parties come from the yachting market, the local societies (Organizations of Local Authorities) and professional groups (businessmen, seamen, skippers). An important criterion for the promotion of maritime tourism development is the acceptance by the local stakeholders not only of the manner but of the size of development as well. The two latter elements are tied with the specific area for which maritime tourism development is proposed as well as with its special characteristics.

METHODOLOGY OF THE EMPIRICAL RESEARCH

The methodology followed for the present research includes three levels:

- a) The literature review
- b) The Questionnaire development
- c) The field research and
- d) The data elaboration and the calculation of the importance of each factor.

The first phase was a literature review in order to collect the factors that have been already identified by scholars. The outcome was limited so it was used as an input to the second phase. The latter includes a brainstorming session, in order to decide on: a) which of these or any other additional factors could be used as a decisive factor for the maritime tourism development in island yachting from a small island point of view. The third phase of the research includes the questionnaire development and the field research in the small Dodecanese islands. The final stage was the data elaboration and the calculation of the importance of each factor.

The research endorsed the methodological framework that is portrayed in figure 1.

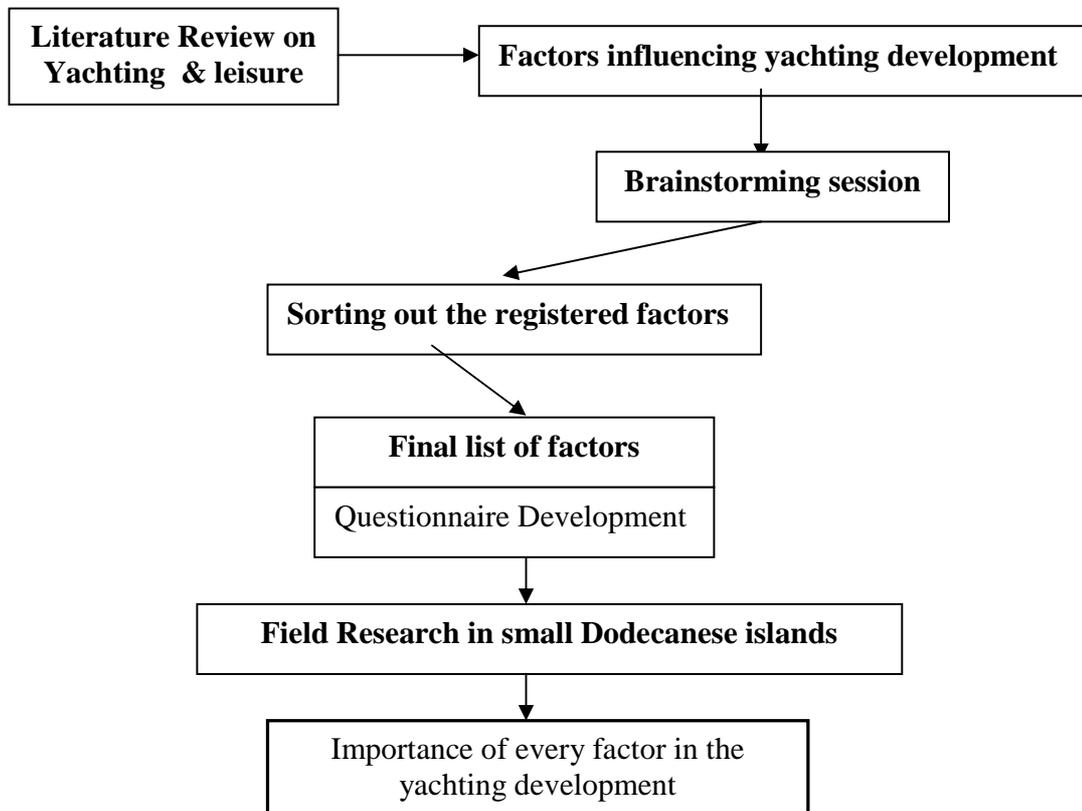


Figure 1. Methodological Framework

AHP method has the ability to structure complex, multi-person, multi-attribute, and multi-period problem hierarchically. Pairwise comparisons of the element (usually, alternatives and attributes) can be established using a scale indicating the strength with which one element dominates another with respect to a higher-level element. This scaling process can then be translated into priority weights - scores (Yusuff R. M. et al., 2001:421).

The Analytic Hierarchy Process- (AHP) uses hierarchical decision models that have a mathematical basis. The meaning of the hierarchical decision model must be defined and subsequently the process for decision making with the use of the model will be explained. The AHP has a successful track record regarding applications in the wider transport area and ports (Lirn et al, 2004) following its introduction as a multiple criteria decision-making (MCDM) methodology in the late 1970s (Saaty, 1977)..

AHP is a multi-criteria method for decision making and priorities ranking (developed by Saaty, 1977, 1980, 1996). This method "combines subjective and objective estimations or perceptions, in an integrated framework which is based on scale ratios from pair comparisons" (Saaty, 1980 (a)). The judgments from the pair comparisons are made by experts or decision makers and in combination with the use of the AHP algorithm are producing the final outcome. In the port

industry the AHP has been used mostly for assessing port selection criteria (Song, Yeo, 2004), (Lirn, Thanopoulou, *et al* 2004), (Guy Urli, 2006), (Ugboma *et al*, 2006), carrier selection criteria (Wong, Yan, Bamford, 2008) and benefits distribution from port services (Vaggelas, Pallis, 2009).

In order to reach reliable results from the application of AHP, the elements of the hierarchy model must be of the same importance (Saaty, 1994) and the judgments in the pair comparisons consistent. An Inconsistency Ratio (IR) allows to trace inconsistency. When $IR < 0.01$ judgements and outcomes stand as reliable (Saaty, T., L., (1980b).

Model: A model is a representative of a phenomenon which helps us solve problems. We can define our model either or a natural or a mathematical model in our effort to discover the significant impacts. Further on, we apply what we have in the real world.

A decision hierarchy: A typical simple decision hierarchy requires an objective, criteria and alternative solutions. We make comparative analysis per couples in hierarchy features, in relation to a feature of a higher level than them, in order to conduct priorities and then depict them as a result of the total.

The method is based on a series of comparisons per couples of the existing data so their relative priority can be determined. The criteria with which the comparisons are made and the final hierarchy deriving from them, are not necessarily determined. It is possible and acceptable to be based on non-measurable factors such as experience and subjective judgment. After the completion of the process, the most important factors have the highest gravity coefficients (Saaty 1999a).

Aiming to identify the experts' opinions, questionnaires are completed in which the criteria and sub-criteria of each criterion in couples are prioritised. These can determine the impact of the choice of each separate activity for the development of yachting in the Dodecanese islands.

CASE STUDY: SAILING TO SMALL DODECANESE ISLANDS

The area of this research includes the analysis of the factors that contribute to the development of yachting in small islands. This paper presents the results of an empirical research that aims to (a) identify the criteria for the development of yachting and (b) conclude on the hierarchy that each of these criteria has. These factors become the criteria and sub-criteria in order to reveal and analyze the development of maritime tourism and their impact upon it.

The case study is the development of maritime tourism of small islands in the Dodecanese Archipelagos. Maritime tourism (by tourist boats and yachts) in the Aegean is concentrated on a relatively small number of ports, which simultaneously constitute the main poles of attraction for tourists. The Argosaronic Gulf, the Cyclades and the Dodecanese show the largest concentration. However, it should be noted that the Argosaronic Gulf shows signs of a saturated market (Piraeus – Hydra) with the ports of Southern Dodecanese (Rhodes – Kos) following.

Even though the Dodecanese is one of the most developed tourist regions of the country (Rhodes, Kos belong to this region), significant disparities and differentiations are observed among the islands as to welfare level and to the indices of tourist development. At the same time, due to the distinctiveness of maritime tourism on one hand and the distance from large mainland urban centers on the other, we can observe numerous differences in the manner and

type of tourist development of the Dodecanese compared to those of e.g. the Caribbean or the Saronic Gulf islands. For these reasons, the selection of the small islands of the Dodecanese, based on their characteristics (area, population, land morphology) and the indices of economic and tourist development constitutes an interesting case study of the development of maritime tourism.

These Dodecanese islands face serious problems, for reasons of their geographical nature (spatial discontinuity, small size and the long distance from urban complexes) and diachronic absence of sustainable model of economic and social development. A special characteristic is the fact that even though the whole region has significant natural and cultural resources, significant economic, social and cultural particularities per island are presented.

The Greek islands constitute important tourist destinations. For these island societies, the role of tourism as a source of income and development is especially significant. However, a number of small islands is exposed to the negative impacts of mass tourism while some islands present difficulties at call, due to the existing coastal shipping network on one hand and due to limitations presented by the small size and the existing port infrastructure (e.g pertaining to the possibility of cruise calls) (Lekakou, Tzannatos, 2000). In most cases a limited substantial involvement of the local communities is observed in the production or in the formation of the production of tourist products. Therefore, we observe the passivity of the inhabitants and the prevalence of identical conditions in the tourist product and finally the loss of the comparative advantage of each island. Another critical point is the carrying capacity of island communities and destinations that should not be exceeded, and external effects should be controlled and measured, enhancing the positive ones and diminishing the negative. It is important to reduce seasonality of tourism by diversifying activities and changing traditional "sun and sand" tourism into a wider coastal and marine tourism model, which would involve more activities traditionally developed in the seafront (Spilanis, 1999).

The present study analyzes the factors that may influence the development of Yachting in the small islands of Dodecanese.

For the completion of the research the following islands were selected: Astypalea, Kastelorizo, Lipsi, Leros, Nisyros, Patmos, Symi, Tilos and Chalki. A common feature of these islands is that they are the smallest in size and the least developed ones. Karpathos and Kasos were not included in the research only due to their geographical position that is far from the archipelagos of the rest of the islands and near Creta.

The selection of the 9 islands of the Dodecanese was on the grounds that they are destinations of significant demand by the tourists of maritime tourism. Specifically Rhodes and Patmos are included in the 10 largest ports of the country in the preference of cruisers and the number of passengers that visit them (Rhodes 3rd, Patmos 5th). Occasional cruise calls 1 to 2 or 3 per year take place on other smaller islands as well. From the total of 954,791 cruise tourists (NSSG, 2006) who visited Greece in 2004, 213,300 22,34% have passed by the Dodecanese (almost all of them by Rhodes and Patmos, while less than 1,000 in total have passed by Nisyros, Symi and Chalki).

A significant activity for the small islands is the visits of one-day tourists on Daily cruises on small passengers boats coming from the larger and more developed tourist islands. The

percentage of 18% of the total tourists (approximately 700,000) is especially high since it shows that approximately 1/5 of the day tours takes place in the Dodecanese.

The islands included in the field research are the destinations selected by leisure boats charterers who choose the Dodecanese for their vacations. Simultaneously, it has been estimated that 18% of the leisure boat charters taking place in the country, are in the Dodecanese (mainly in Rhodes and secondarily in Kos). Consequently, from the total of approximately 235,000 tourists who bought Yachting services in Greece in 2005, 42,300 had preferred the Dodecanese.

A significant Yachting activity is observed in the Dodecanese. The number of leisure boats chartered in Greece in 2005 has been estimated to 41,900. According to estimates by experts and members of the professional unions, a ratio of 18% of the charters took place in the Dodecanese. The total of the leisure crafts charters in the Dodecanese for 2005 was consequently 7,542. The majority of these charters took place in Rhodes to a very high percentage, and in Kos.

The visitors of the islands however witnessed great deficiencies in the mooring infrastructure and in the offered services (for the vessels) at the ports and on the mainland.

It is concluded from the above that these 9 islands of the study constitute the "ideal field" for the identification and the hierarchy of factors influencing the yachting development in small islands

The empirical research took place from June to August of 2007. The questionnaires were completed by a large number of experts such as: a) members of the Local Authorities, b) of the Coastguard and c) businessmen. The AHP designed questionnaire survey (containing an explanation of the major criteria and a clear example of how to answer the questionnaire) was distributed to 30 and was completed by 29, which covered almost 65% of the total (estimated maximum) of 45 experts (port operators /coastguard officers /local authorities /maritime tourism businessmen, yachtsmen).

YACHTING DEVELOPMENT CRITERIA

The results of the AHP reveal different views and priorities among the experts. Various approaches were given not only from questionees among different islands but from questionees on the same island itself. This is due to the difference of the morphology and the features of natural or built ports or marinas among islands and on the other hand due to the different approach and priorities given by the experts. The latter differentiation has to do with the status, the job position and the knowledge and the experience of the area each respondent has.

As it has been recognized, infrastructure in ports is a predominant condition for Yachting development in Greece. The condition of port infrastructure in the coastal regions of the Dodecanese is considered insufficient.

Two marinas in the Dodecanese (in Rhodes and Kos) offer 365 mooring posts in total, out of the approximately 7,400 posts in the country. Additionally, only 6 out of 61 ports that can offer supply services to leisure boats are located in the Dodecanese. The lack of infrastructure on the one hand and the effort of private initiative in order to satisfy the demand on the other, are demonstrated by the fact that two of the four private marinas of the country are located in the

Dodecanese. The improvement of the offered services at every type of tourist port is what is needed.

The groups of criteria and the criteria, which are estimated to have an impact on Yachting development, are afterwards elaborated on.

Criteria groups

A prerequisite for the prioritisation of the activities for the development of yachting services provision in small islands is the identification of the yachting service offered.

Based on the previous review and the expertise, port infrastructure (at tourist ports and marinas) is a primary precondition for Yachting development and consequently all the factors characterizing it will become criteria groups or will be integrated into a group.

Another significant feature (inseparable from port infrastructure) for Yachting development is the port equipment and the services offered there. The connection of the port with the land zone, where the facilities offered to the users are concerned, is another category of preconditions for Yachting development. Finally, the competition observed in the Yachting market, on a global scale as well as in the wider region of the Mediterranean, is affected by the level of infrastructures and services and also by the costs for them. Consequently, a group of criteria pertaining to the major costs paid by leisure level charterers is necessarily included in the criteria.

The determination of groups was done with the cooperation of the field's experts. For their final selection the opinions of business officials and local authorities and organizations were co-evaluated because they are aware of the particular characteristics of the region under research.

The hierarchic structure of the levels of criteria as well as the number of criteria on each level are quite significant in the implementation of AHP. For this reason, the structure of the present research is relatively simple, with data present of two levels and a total number of 39 questions (comparisons per couples).

The groups of criteria selected are the following:

1st: Mooring availability for yachts, sailers & tourist vessels

2nd: Port basin characteristics

3rd: Mooring positions' characteristics

4th: Facilitations on the land zone

5th: Port equipment

6th: Port costs

Criteria characteristics

The selection of the characteristics for each criteria group was also a result of synthesis of opinions and estimations by field experts and by individuals who apart from their knowledge and experience are well aware of the special conditions prevailing in the specific area. The 19 sub-criteria selected for the total of criteria are presented below per couple.

The 1st criteria group "Mooring availability for yachts, sailers & tourist vessels" includes 2 sub-criteria:

1. The natural position of the port (Entrance, weather conditions)
2. Non existence of fishing and commercial vessels in the port

The 2nd criteria group "Port basin characteristics" also includes 2 sub-criteria:

1. Sufficient room for maneuvers
2. Type of sea bottom (Muddy, rocky, etc)

The 3rd criteria group "Mooring positions' characteristics" includes 3 sub-criteria:

1. Sufficient draught
2. Sufficient quay length for simultaneous and safe vessel mooring
3. Infrastructure for speed and mega yachts (availability of a proper ramp, etc)

The 4th criteria group "Facilitations on the land zone" includes 4 sub-criteria:

1. Availability of utility and hygiene areas
2. Availability of car parking space
3. Interconnection with transportation means
4. Availability of areas for maintenance and wintering

The 5th criteria group "Port equipment" includes 5 sub-criteria:

1. Supply infrastructure (water-fuel)
2. Availability of launches
3. Fire fighting means
4. Vessel lift for repairs and maintenance
5. Port approach and Safety control

The 6th criteria group "Port costs" includes 3 sub-criteria:

1. Mooring dues
2. Dues for astern/alongside mooring
3. Wintering dues

Table 1 presents in which levels of the objective, the criteria, the sub-criteria and the alternative solutions are depicted.

GRAVITY OF CRITERIA FOR YACHTING DEVELOPMENT IN THE SMALL DODECANESE ISLANDS
<i>Goal: YACHTING DEVELOPMENT IN THE DODECANESE ISLANDS</i>
<input type="checkbox"/> <i>Mooring availability for yachts, sailers & tourist vessels (L: 0,194, G:0,194)</i>
<input type="checkbox"/> <i>The natural position of the port (Entrance, weather conditions) (L: 0,803, G:0,156)</i>
<input type="checkbox"/> <i>Non existence of fishing and commercial vessels in the port (L: 0,197, G:0,038)</i>
<input type="checkbox"/> <i>Port basin characteristics (L: 0,248, G:0,248)</i>
<input type="checkbox"/> <i>Sufficient room for maneuvers (L: 0,602, G:0,149)</i>
<input type="checkbox"/> <i>Type of sea bottom (Muddy, rocky, etc) (L: 0,398, G:0,099)</i>
<input type="checkbox"/> <i>Mooring positions' characteristics (L: 0,158, G:0,158)</i>
<input type="checkbox"/> <i>Sufficient draught (L: 0,559, G:0,088)</i>
<input type="checkbox"/> <i>Sufficient quay length for simultaneous and safe vessel mooring (L: 0,240, G:0,038)</i>
<input type="checkbox"/> <i>Infrastructure for speed and mega yachts (existence of a proper ramp, impactor, fender, etc) (L: 0,201, G:0,032)</i>
<input type="checkbox"/> <i>Facilitations on the land zone (L: 0,134, G:0,134)</i>
<input type="checkbox"/> <i>Availability of utility and hygiene areas (L: 0,470, G:0,063)</i>
<input type="checkbox"/> <i>Availability of car parking space (L: 0,115, G:0,015)</i>
<input type="checkbox"/> <i>Interconnection with transportation means (L: 0,132, G:0,018)</i>
<input type="checkbox"/> <i>Availability of areas for maintenance and winter shelter (L: 0,283, G:0,038)</i>
<input type="checkbox"/> <i>Port equipment (L: 0,186, G:0,186)</i>
<input type="checkbox"/> <i>Supply infrastructure (water-fuel) (L: 0,259, G:0,048)</i>
<input type="checkbox"/> <i>Availability of launches (L: 0,073, G:0,014)</i>
<input type="checkbox"/> <i>Fire fighting means (L: 0,235, G:0,044)</i>
<input type="checkbox"/> <i>Vessel lift for repairs and maintenance (L: 0,167, G:0,031)</i>
<input type="checkbox"/> <i>Approach control and port Safety (L: 0,266, G:0,050)</i>
<input type="checkbox"/> <i>Port costs (L: 0,079, G:0,079)</i>
<input type="checkbox"/> <i>Mooring dues (L: 0,297, G:0,023)</i>
<input type="checkbox"/> <i>Dues for astern/alongside mooring (L: 0,437, G:0,035)</i>
<input type="checkbox"/> <i>Wintering dues (L: 0,266, G:0,021)</i>

Table 1: The diagram of the model

THE SIGNIFICANCE OF THE CRITERIA AND SUB-CRITERIA

The degree of participation of each criterion and sub-criterion, which depicts its gravity for the achievement of the objective as well, will formulate the results for the procedures and the actions required so that Maritime Tourism can essentially contribute to the development of these islands.

It should be mentioned that the structure of the questionnaire was such, that the respondents were asked to compare each sub-criterion included in the Criterion, with the remaining sub-criteria of the Criterion. Therefore there is no comparison of all the sub-criteria separately with the remaining belonging to other criteria. This was done for purposes of abridging the number of the questions. Despite all these, with the Expert Choice software that was used, the gravity coefficients were calculated without the aid of such a comparison. The most significant sub-criteria are depicted afterwards.

The results (gravities) from the AHP analysis of the research with the questionnaires clearly demonstrate the significance of the "Characteristics of the port basin" with 0,248 or 24,8%. The significance of this coefficient is rather high and is proven by two data.

Firstly, by their difference from the first criterion "Mooring availability for yachts, sailers & tourist vessels" (0,194 or 19,4%), which follows the first in gravity with a difference of 0,054 or 5,4%.

Secondly, comparing the criteria of the first level we discover that the greatest significance difference between the successive criteria in significance is that of the fifth, "Facilitations on the land zone" (0,134), with the sixth, "Port costs" (0,079), which is 5,5%.

Comparing in the same way the differences in significance between criteria successive in significance, we ascertain that the difference between the first Criteria "Mooring availability for yachts, sailers & tourist vessels" (0,194) and the fifth "Port equipment" (0,186) is just 0,8%. At the same time, the difference between the fifth and the third criterion "Mooring positions' characteristics" (0,158), is 2,8% and finally difference between the third and the fourth, "Facilitations on the land zone" (0,134) is 2,4%.

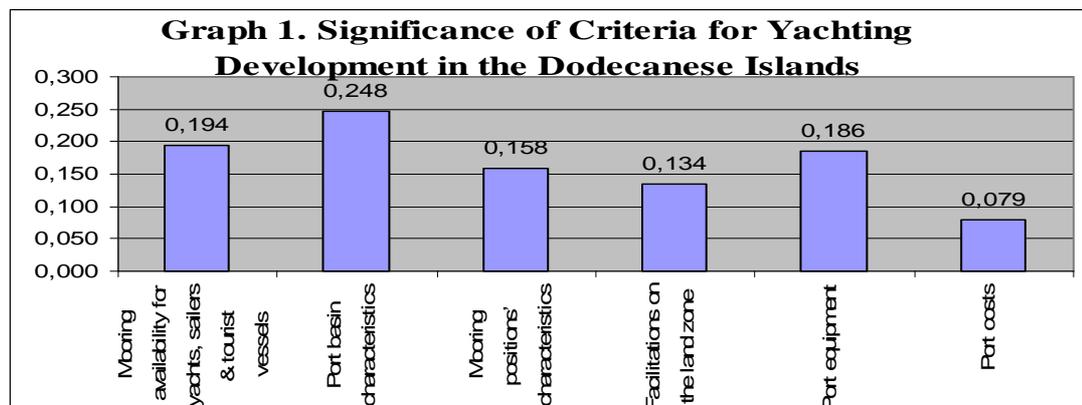
According to the above, it is concluded that despite the greatest significance of the second criterion "Port basin characteristics", it is not considered that the experts in the field are indifferent to the remaining 4 criteria which are to a lesser extent significant. On the contrary, their opinion is that the sixth Criterion "Port costs" is rather negligible. This shows to an extent the deficiencies depicted and pertain to the Criteria of infrastructure and services, deficiencies that are judged as more significant than port costs.

<i>Criteria</i>	<i>Significance (%)</i>
1 <i>Port basin characteristics</i>	24,8 %
2 <i>Mooring availability for yachts, sailers & tourist vessels</i>	19,4%
3 <i>Port equipment</i>	18,6%
4 <i>Mooring positions' characteristics</i>	15,8%
5 <i>Facilitations on the land zone</i>	13,4%
6 <i>Port costs</i>	7,9%

Table 2: The significance of the criteria in priority order, as perceived by local experts in an AHP survey

Starting the analysis of the results concerning the significance of the Sub-criteria, it is useful to make some notes.

At this point it is useful to clarify that the gravity coefficients for each sub-criterion have been estimated as for their Local significance (the Criterion they belong to) as well as for their Total significance (as to the Objective). Their Total significance firstly has to do with the significance of the Criterion they belong to, and secondly, with their own significance. That is, one sub-criterion may have a high (Local) significance for the Criterion it belongs to, its Total significance however may be low due to the low significance of the Criterion it belongs to as to the Objective. One sub-criterion belonging to a Criterion of medium significance, may sometimes have a higher significance as to the objective even than the most significant sub-criterion of the most significant Criterion. This can happen due to the existence of many almost equally significant sub-criteria in the most significant Criterion in which case the significance is divided among them, while at the same time one sub-criterion of a medium significance Criterion may be particularly significant and the rest of a less significance.



Graph 1- Significance of Criteria for Yachting Development in the Dodecanese Islands.

Table 3 which follows allows us to observe the five (5) most significant sub-criteria, while Table 4 presents the five (5) least significant sub-criteria.

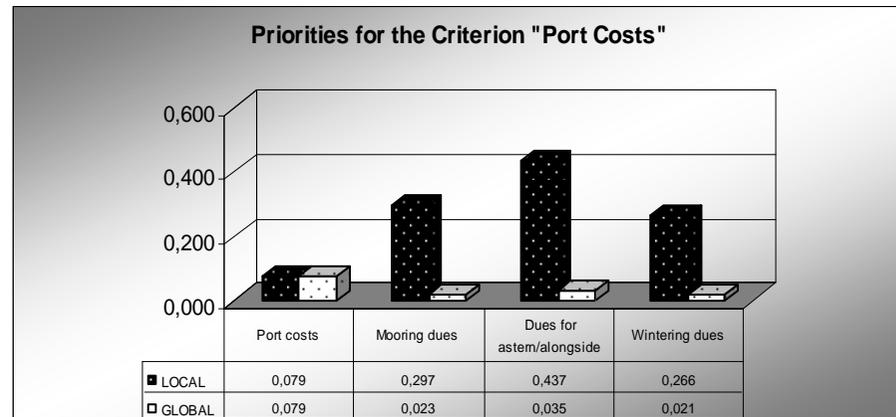
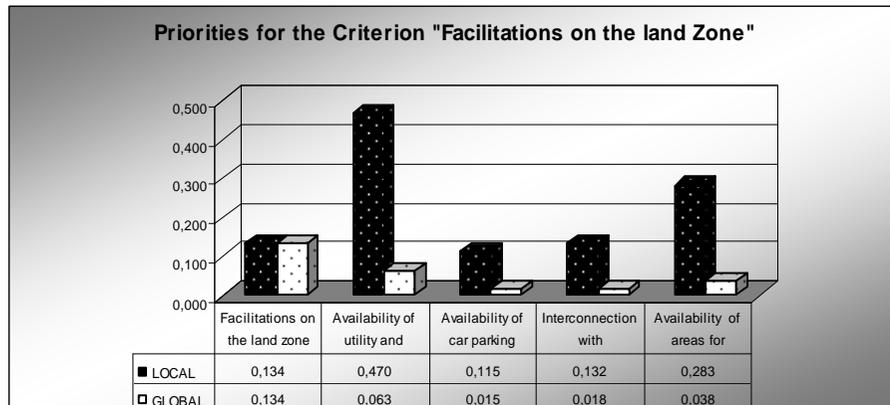
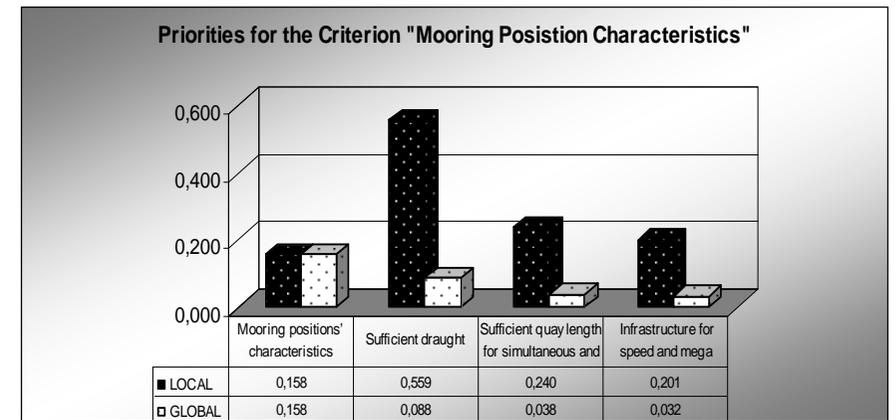
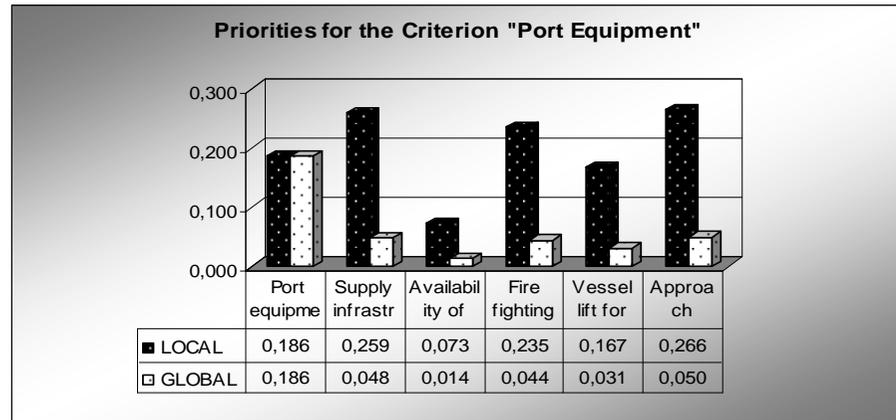
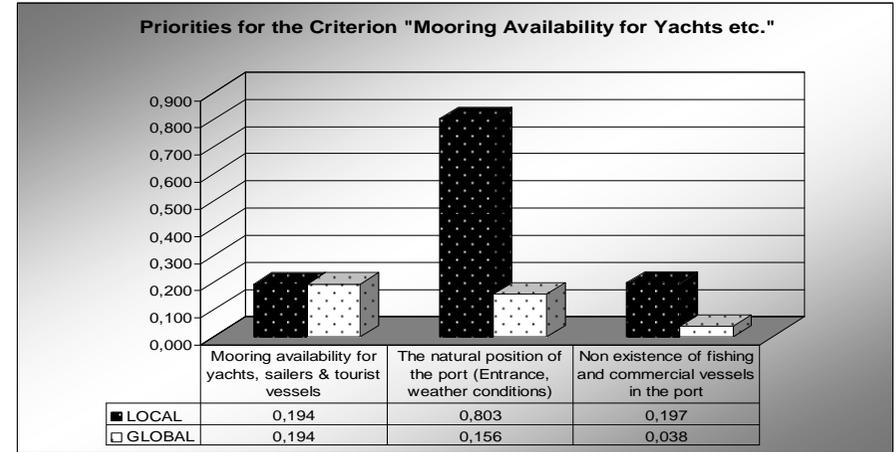
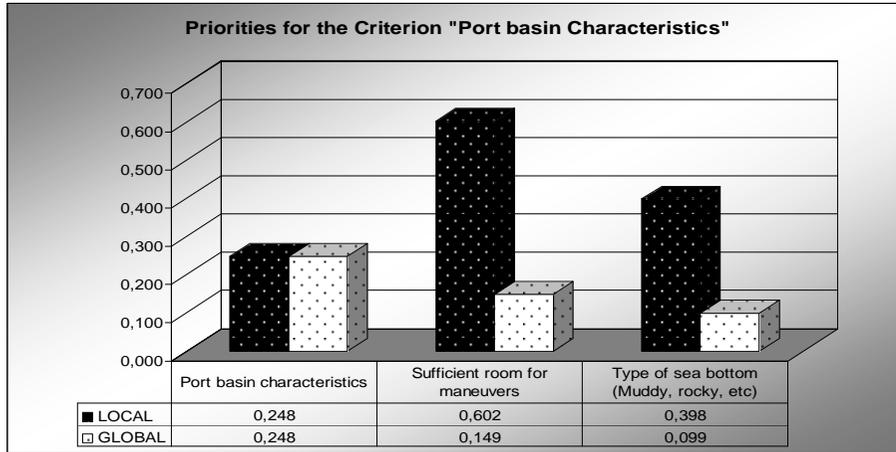
<i>The natural position of the port</i>	<i>0,156</i>
<i>Sufficient room for maneuvers</i>	<i>0,149</i>
<i>Type of sea bottom</i>	<i>0,099</i>
<i>Sufficient draught</i>	<i>0,088</i>
<i>Availability of utility and hygiene areas</i>	<i>0,063</i>

Table 3: The five most significant sub-criteria as perceived by local experts in an AHP survey

<i>Availability of launches</i>	<i>0,014</i>
<i>Availability of car parking space</i>	<i>0,015</i>
<i>Interconnection with transportation means</i>	<i>0,018</i>
<i>Winter shelter dues</i>	<i>0,021</i>
<i>Mooring dues</i>	<i>0,023</i>

Table 4: The five least significant sub-criteria as perceived by local experts in an AHP survey

In the following 6 diagrams the sub-criteria of each Criterion are presented indicating their degree of importance for the Criterion they belong.



CONCLUSIONS

The development possibility of Yachting in small Dodecanese islands was studied in the present research. After the notional approach of Maritime Tourism and the activities it includes, its impact in the Greek market and its degree of participation in the economic development of the country was determined. The factors which can contribute to the Maritime Tourism development in Dodecanese islands were determined after the recording of the opinions of the field experts, while it was questioned how possible the realization of an investment program is, which could lead to the development of the specific tourist activity.

Based on the results, useful conclusions arise as to the existing infrastructure and the Yachting services provided in the small islands of Dodecanese. The significance of the criteria and sub-criteria which was recorded, depicts simultaneously the degree to which these factors are lacking and the necessity for their acquisition or improvement.

The conclusions pertain totally to all 9 islands, which present even to a large degree Maritime Tourism activities and, which were the case study. During the research significant differences in the answers of the respondents were observed. The results of the AHP analysis of the questionnaire surveys showed definitely that there is a strong subjective importance as in other cases too (Lyrn, 2004). In spite of this, the lack in basic infrastructures, equipment and services for the development of yachting arises in these islands.

According to Table 1 depicting the gravity of each criterion as to the degree of its significance at the desired objective, it is observed that the highest rank in the hierarchy is the criterion "Port basin characteristics" followed by "Mooring availability for yachts, sailers and tourist vessels" and "Port equipment", are the most significant criteria for Yachting development, with a total of 62,8%. A relative significance was presented by the criteria "Mooring positions' characteristics" and "Facilitations on the land zone" with total significance 29,2%.

In comparison with the rest of the criteria, "Port costs" got 7,9%, a quite low percentage, a fact stating the very low degree of significance of this criterion in the development of Yachting.

Summarizing, we consider as a general conclusion the lack of serious infrastructure for the development of Maritime Tourism in these small islands. At the same time, a satisfactory tourist activity is observed despite the lack of proper infrastructure, a fact depicting the attractiveness of the areas offering maritime tourism. It is concluded therefore, that the promotion of maritime tourism may possibly bring significant benefits to the development of these islands.

We should not overlook the fact that the development of tourist ports may bring environmental (to the sea, land and air) and social effects. Maritime Tourism development can also adversely impact other economic activities, such as agriculture, fishing, aquaculture, forestry and tourism, all of which can directly effect the living conditions and welfare of local people and communities (Dong P.T., Chapman D. M., 2006:179-179). The promotion of Maritime Tourism in the small islands, provided that it constitutes common resultant of state and local societies, can turn out to be the central axis of developmental process that will ensure both the social and cultural harmony of insular regions. Research, education of stakeholders and spatial planning will be the first steps. Actions in local and national level should be coherent. Yachting should be given equal importance compared to Coastal Shipping and Cruising, which for certain islands may function complementary to Yachting, while for others they might constitute their main field of Maritime Tourism development.

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EVENT SPONSORSHIP – A CORPORATE TOOL FOR BRAND POSITIONING. THE RELATIONSHIP BETWEEN SPONSORSHIP ACTIVITIES AND BRAND BUILDING STRATEGIES. THE CASE OF ALBANIA

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The use of event sponsorship has increased greatly in the recent years, and the proportion of event sponsorship in companies' marketing budgets has increased. A major contributor to this development is the increasing difficulty of differentiating from competing brands through mass-media advertising. Events offer an opportunity to focus on a smaller, but more select number of people in an appealing environment, which can bring forth positive associations to the brand and thus give it a competitive advantage.

The study made evident that event sponsorship was still a rather minor component in most companies' marketing mixes, and that it was not explicitly included in most companies' marketing strategies. The role of event sponsorship in building brand image and identity was thus a minor one.

The purpose of this study is to shed light on how companies relate their sponsorship activities with their overall brand building strategies. The increasing use of event sponsorship as a marketing medium can be said to make the study more interesting in a general sense.

The study is related to brand positioning and spans the whole event sponsorship process, from the sponsorship bid to the sponsorship evaluation.

The aim is to try to find out how companies relate event sponsorship to marketing strategy, how they communicate their brand identity at events, and how they monitor the effects of the sponsorship activities, and how these activities relate to the event lifecycle.

Keywords: Event sponsorship, brand, brand building, brand image, brand identity, brand positioning, project lifecycle.

EVENT SPONSORSHIP

Jiffer and Roos (1999) explain sponsorship as *"purchasing the right to create an association with the event"*. Sponsoring is about marketing a company and its products and services in order to sell more. With event sponsorship, a company aims to make itself visible through a popular activity and be associated with that activity. In event sponsorship a company can choose to reach either a narrow or a wide audience, depending on what they want from the promotion. (Jiffer & Roos, 1999). Event sponsorship allows organizations to reach their target market with less confusion than other communication methods. It also exposes the product directly to the market and provides an excellent mechanism for the organization to give back to the community by which it is supported. (Walker Mack, 1999) There are many advantages and disadvantages in event sponsorship. Jiffer and Roos (1999) have mentioned such advantages as the possibility to reach a large audience and combine many different media with event sponsorship. Many times possible customers can see advertisements placed on a sport stadium through television broadcastings and newspaper pictures, which increases the effectiveness of event sponsorship. Another advantage is that event sponsorship

can increase awareness of other advertising and marketing acts of the company, such as radio and television campaigns. Event sponsorship seems also less commercial than other types of advertising. Furthermore, the sponsor is seen in the context of and associated with a positive leisure time activity. Event sponsorships provide relatively unobtrusive but high-impact name exposure coupled with positive associations (Aaker, 1996). Jiffer and Roos (1999) have claimed that event sponsorship also has many disadvantages. They mention, for instance, that it is very time consuming because of the preparations,

planning, and functions during the event. To be effective and successful in the events, a considerable amount of work has to be done, objectives have to be clearly defined, and knowledge has to be gathered. Wragg (1994) suggests that before planning any form of sponsorship, one should be clear about the objectives of the sponsorship, i.e. the expectations that should be fulfilled. This is important because careful analysis might suggest that sponsorship is not necessarily the best way forward. The audience of each event must be researched, as well, to be sure of the breakdown of the people present. This should be done by demographics such as sex, age, region, social group, disposable income, and occupation. (Wragg, 1994). However, the most crucial fact is that sponsorship is a weak message carrier for unknown brands. Wragg (1994) argued that sponsorship can only succeed if the brand has a sound reputation. In other words, if the brand is not known by the public, sponsorship will only waste time and money. No one will notice an unknown brand name in an event. Competition for attention in events is hard, especially for newcomers. Moreover, in outside events the successfulness can also be dependent on the weather.

MEASUREMENT OF THE IMPACT OF EVENT SPONSORSHIP

Visibility is important, and can provide value for money. It is not easy to compare one sponsorship agreement to another. However, looking at competitors and their sponsorship programs and evaluating if they are making an impact might help making one's own decisions. This basically means taking a wide look at what other are doing in the field, what they are paying directly and indirectly for the sponsorship agreement, and what are the results. One should also judge whether what you will pay for the sponsorship and whether the cost and effort of promoting the sponsorship will provide value for money (Wragg, 1994). Tuori (1995) argues that the impact of event sponsorship should be evaluated when planning the sponsorship, during the sponsorship, and after the event:

- Before committing to sponsorship one should research how well the brand is known and what the interest groups' attitudes are towards the brand. Furthermore, it is important to know how the brand image is perceived.
- During sponsorship, it is crucial to evaluate that the company is on the right path with its communications and whether the environment gives a reason to change or adjust the direction of communications.
- After the sponsored event has ended, the company has to research the impact of the sponsorship and how well the company has reached the targets. (Tuori, 1995). Measurement of the value of event sponsorship is very hard. Presented below are ways to estimate how feasible the sponsorship agreement has been.
- Explanations will be given on how to evaluate media exposure, how to evaluate the impact on image, how to measure effects on event visitors, and how to evaluate the impact of event sponsorship to different segments.

BUILDING STRONG BRANDS

As Aaker (1996) stated, brands offer marketers a way of differentiating their products or services, which otherwise would easily copied by the competition. Branding can thus be argued to build barriers for competitors, which become harder to breach as the brand grows in power. Branding is also one of the most important tools for creating a good position on the market. A strong brand can create a high degree of loyalty and thus build a solid sales base. (Kapferer, 1997). As a result of that, a strong brand can benefit a firm by adding protection against competitive marketing actions or marketing crises, providing larger margins, and more gaining more favorable customer response. One can therefore argue that gathering knowledge and doing research on how to create a powerful brand is essential. (Aaker 1991, 1996). Kotler et al. (1999) gave examples of different tools to use for strengthening a brand and projecting its image and identity. Strong brands often show an owned word, a slogan, a color, a symbol or a collection of stories. An owned word refers to the triggering of a certain word in people's minds when presented with a brand; ideally, this word is a positive one. A slogan is a brief message that companies add to their corporate or

brand name, which is repeated in all advertising. The effect of the repetition of a slogan nearly is hypnotic and it helps the brand be more memorable. Colors, too, can be related to a certain brand; for instance, a certain shade of blue that is characteristic to Fazer chocolate has been branded, and thus legally protected, in Finland (M&M, 35/2004). Symbols are often related to brands, as are certain logotypes. Two good examples of well known symbols are Mickey Mouse's ears and the Nike swoosh. Another kind of symbol is a spokesperson, e.g. an athlete or a movie star, who promotes and endorses a brand; this can be seen as an attempt to lure consumers by connecting the brand with someone they trust and can relate to. Pepsi, for instance, has sponsored a great number of pop stars, while Nike has at some point been directly personified by Michael Jordan. Some brands and companies are associated with stories. The stories can be related e.g. to the founder and the struggle of creating the company. The story can also revolve around the founder alone, who gives the company a face. Such stories can deepen the consumer's perception of the brand and give more value for their money. It is important that the stories that are put forth are in line with the brand's and company's image, as that gives more power to the stories. A good example of a story related to a brand is that of Levi Strauss jeans, which allegedly have a past in the gold rush of the 19th in Western USA, where they were used by miners. Examples of founders of companies that have become "larger than life" could include Bill Gates of Microsoft and Richard Branson, the man behind Virgin. (Kotler et al., 1999).

Customers' needs and wants are ideally the cornerstone of all marketing in modern business procedure. The AIDA model gives insight into the thought processes of the consumer.

THE AIDA -MODEL

In order to be successful in brand building, a company must learn to understand the wants and needs of its consumers and their motivation and decision-making processes. A great number of models are usually based on concepts from psychology, which purport to show how people reach decisions. (ft.com, 2001). Advertisers view the market as an active group, purposefully seeking information from mass media, which requires considerable participation from audience members. These conditions created the AIDA model (awareness, interest, desire, action) which suggests that when considering making purchases, human thought processes go through four stages. The model states that the advertising message must first gain the audience's awareness then its interest, next its desire for the product, and finally action (purchase) will occur. (Smith and Swinyard, 1982; ft.com, 2001).

Before a customer will make a purchase decision, he or she needs to be aware that the product exists, what it is, what it does, and perhaps also where and when it is available. Next, consumers need to be stimulated to take some interest in the product. What special features does the product have? What benefits does it offer to consumers? How might it satisfy any one of a variety of needs and wants that the consumer might have? During this stage the consumer develops a reaction to the product, usually either favorable or unfavorable. (ft.com). If the response is favorable and the advertisement is successful in awakening interest, it then attempts to create a desire to purchase in the consumer's mind. It does this by successfully connecting the benefits of the product with the consumer's needs and wants. This phase of advertising has to both show consumers that there is a product available which will satisfy their needs, and show them that they can satisfy that need by purchasing the product in question. This leads to the final stage, action, where consumers actually get up, go out, actively seek the product and buy it. (ft.com).

BRAND LEADERSHIP

Aaker and Joachimsthaler (2000) have introduced a theory of "brand leadership" which proposes a model for building strong brands. They propose that brand building faces four fundamental challenges that an organization must tackle in order to thrive in the market.

The organizational challenge

The first challenge is to build an organization that supports the construction of strong brands. Brands must have solid management teams that are devoted to building them on a long-term scale, and the organization must adapt a culture that is focused on nurturing and maintaining brands. (Aaker and Joachimsthaler, 2000).

The brand architecture challenge

Brand architecture involves identifying the brands and sub-brands that are most valuable to the company and acknowledging their relationship with one another. The aim of brand architecture is to clarify customer offerings, create

A key element in brand architecture is knowing when to stretch an existing brand, when to create a new brand, when to use an endorsed brand, or when to launch a sub-brand. These decisions are instrumental when stretching to new markets; e.g. sub-brands or endorsed brands can be used for vertical stretches when seeking access to upscale or downscale markets. (Aaker and Joachimsthaler, 2000).

The brand-building program challenge

Communication and other brand-building programs are needed to realize the brand identity. In fact, brand-building programs not only implement the brand identity but also help define it. An advertising execution or a sponsorship can bring clarity and focus to a brand identity that would otherwise appear sterile and ambiguous. As previously stated by Kotler et al. (1999), a symbol or a story can help people relate to a brand, as they give something tangible to which people can feel a connection to. In Finland, for instance, Coca-Cola is forever tied to the Summer Olympics of 1952 in Helsinki, when the first cases of the soft drink arrived to the country. Coca-Cola has in a sense made itself a part of the Olympics by constantly sponsoring the event since 1928 (Athens 2004), and as such included itself in the Olympic story. (Aaker and Joachimsthaler, 2000). The key to most strong brands is brilliant execution that bursts out of the clutter, provides boost to the brand, and creates a cumulative impact over time. The difference between good and brilliant cannot be overstated. Brilliant execution requires the right communication tools. These tools are often more than just advertising – in fact, sometimes advertising plays a small role or even no role. One key is to access alternative media. The strong brands of tomorrow are going to understand and use interactive media, direct response, promotions, and other devices that provide relationship-building experiences. Another key element is to learn to manage the resulting communication program so that it is synergetic and consistent on strategy. (Aaker and Joachimsthaler, 2000). Successful management involves measurement. Without measurement, budgets become arbitrary and programs cannot be evaluated. However, measurement should encompass all aspects of the brand; relying on short-term financial indicators alone is a recipe for brand erosion rather than brand building. (Aaker and Joachimsthaler, 2000).

The brand identity and position challenge

Each actively managed brand needs a brand identity – a vision of how the brand should be perceived by its target audience. The brand identity is at the heart of the brand leadership program, because it is the vehicle that guides and inspires the brand-building program. If the brand identity is confused or ambiguous, there is little chance of brand building occurring. (Aaker and Joachimsthaler, 2000).

Brand Positioning

When the brand identity and value proposition have been specified, implementation begins. Objectives for communication need to be set, and execution planned and implemented. The starting point for all this is a brand position statement – the cornerstone of the communications program. A brand position can be defined as follows: “Brand position is the part of the brand identity and value proposition that is to be actively communicated to the target audience and that demonstrates an advantage over competing brands”. The four salient characteristics of a brand position as reflected by the phrases are “part”, “target audience”, “actively communicated”, and “demonstrates advantage”. (Aaker, 1996). One key point to consider when positioning a brand is whether it is similar or not with existing brands on the market. If differences are

apparent, the marketer has several choices. First, the brand can be positioned as a “differentiated” product. This way, the brand’s superiority to competitors in respect of the common characteristics can be stressed. (Sujan and Bettman, 1989; Dickson and Ginter, 1987). Another approach, also involving differentiation, is to create a separate submarket or niche for the new brand. This strategy strives to gain advantage from setting the brand apart from the general market and thus seeking a more individual status. (Sujan and Bettman, 1989; Srivastava et. al, 1984).

The existence of a brand position allows the brand identity and value proposition to be developed freely, with texture and depth. They need not be limited to short, concise statements, because the brand position takes that role. The brand position can be shifted according to current needs without interfering with the integrity of the brand; thus, a brand could respond to competition and trends without changing the essence of the brand. (Aaker, 1996). Positioning is thus like the image, but it is adjusted according to the target audiences needs, lifestyle and image. The best strategy of positioning in the communication process is achieved when the message is made simple and easy to understand while still kept appealing. Furthermore, positioning should make the recipient appreciate the offered image. (Kapferer, 1997).

RESEARCH QUESTIONS

The preceding discussion has led to the formulation the following questions:

Main question: “How do companies use event sponsorship to position their brands at different stages of the event sponsorship process?”

This study seeks the answers to how consumer product companies that operate in the Albanian market use the medium to their advantage.

Moreover, as event sponsorship can be seen as a process, the study will give separate focus to its different phases to bring more depth and clarity to the issue.

To underline the differences between the different brands that were studied, a research problem was added:

Research Problem 1: Which elements of brand identity can be expressed through event sponsorship?

There seemed to be differences in how brands benefited from event sponsorship at its differences. To gain understanding on this issue, scrutiny was given on which brand identity elements each brand could best portray at each stage of event sponsorship.

Design approach

From an experimental design perspective, theory is a large body of interconnected propositions about how some portion of a certain phenomenon operates. Theory underpins the development of hypotheses about relationships.

As such, hypotheses are smaller versions of theories. Experimental research is primarily a hypostudy-testing method and can thus be called a deductive method. Researchers derive a hypostudy from theory, design an experiment, and gather data to test the hypo study. There are situations when researchers will use causal design procedures to generate hypotheses in order to create new theories or extend existing theories about a phenomenon; these are referred to as inductive research.

Our study is based on both theories and hypotheses founded by other people as well material gathered by ourselves, making it a mixture of both the inductive and deductive approach. This design approach is referred to as “abductive”, which implies that the researcher tries to extend the existing theory and alternates between the empirical and theoretical level.

Research approach

The choice of the research approach will affect the outcome and character of the research. A determined approach will affect the following research process and it therefore sets the guidelines for the following research approaches.

Empirical Approach

When choosing the method of research, the researcher has two rough-cut options: quantitative or qualitative methods. The choice, however, needs not be limited to one, but a mixture of the two can be employed.

Quantitative methods, as the name implies, seek to quantify research data. The data, which is reduced to a basically numeric form, can then be processed and analyzed into statistics. The quantitative method is usually associated with conclusive research and its purpose is to measure a problem as accurately as possible.

For the purposes of our study, the quantitative method was not suitable. First of all, the information we were looking for was rather broad. Moreover, we had only established the "broad picture" of what we wanted to ask from our respondents by the time we started the interviews.

In-depth interviews

The study for this paper was made by interviewing people in expert positions, using the in-depth interviewing technique. This form of research is rather loosely structured; still, some rules apply to it.

The questions that we posed to the respondents were based on the literature we read. Although we strove to conduct the interviews in a uniform manner, they were affected by willingness of the interviewee to cooperate and the experience we had gained from previous interviews. Therefore, the length of the interviews varied from half an hour to a full hour. Moreover, although we tried to remain neutral towards the respondents' answers and not affect them in any way, the manner in which the questions were presented might have affected the answers.

Therefore, other researchers would not necessarily be presented with the same answers by the respondents.

Analytical approach

As the study was qualitative and performed by conducting in-depth interviews, the results were all in non-numeric form. After each interview, we compared notes, or conducted a debriefing analysis. Later on, we also prepared the data for analysis by looking for significant differences along with significant similarities. Gustavsson (2004) had stated that the key to conducting qualitative research by interview is to look for the same answers; if the respondents start repeating themselves, the topic has been "saturated".

Having accomplished this, we broke the interviews down to their major points and compared them with each other. Using this technique, content analysis, allowed us to group our respondents' answers to recurring themes. When analyzing the responses, we paid close attention to the intensity of the comments, the context in which they were given, their wording, their specificity, and the "big picture", i.e. the general message the respondent gave out. (Hair et al., 2003). Having grouped the answers, we were able to reflect upon them in comparison with the literature we had gathered and the research question and draw our own conclusions.

Quality improvements

To look upon quality in research in an objective manner, consideration must be taken on some key factors. The main points of inspection are sources of error, validity and reliability, criticism towards sources, and finally the ethics. (Silverman, 2001; Kinnear and Taylor, 1996).

Sources of error

Various kinds of errors may occur during the research process. Serious misinterpretation of results may result from those errors, which should thus therefore not be neglected. In the early stages of the research, it is common that problems occur in relation to perspective and setting the research problem. Unless the problem at hand is studied and interpreted in the correct fashion, the study will have no scientific value. Therefore, it is important that enough time is spent in the beginning of the project to set the right question; otherwise, the answers found will be wrong by default. To find the right questions, the researcher sometimes has to challenge the prevailing views over the topic. (Wiedersheim-Paul and Eriksson, 1991). Vested interest relates to the researcher having an interest in viewing reality in a certain manner. Improper reference occurs when the researcher applies results gained from a small sample to the whole population without paying attention to the sampling frame: the sampling frame may be poorly built up. Measurement errors may occur for many reasons, e.g. due to mistakes made by the researcher. Non-response errors occur when the respondents refuse to join the sample or are unavailable for some reason. Respondent error, in turn, occurs when the respondent fails to answer a question correctly, willingly or unwillingly. Unclear questions either in a questionnaire or in an interview can affect the outcome negatively; the interviewer can also affect the outcome by leading the respondent to certain answers. (Wiedersheim-Paul and Eriksson, 2001). Errors in analysis and processing can take place when processing the raw data. Finally, when presenting the findings, the effect of the presentation may be affected by many factors. Unclear disposition of the findings can make the results hard to understand, while selective presentation can distort the message given out by the findings. The effect of the presentation can also be diluted by poor command of language or terminology that is too technical, laden with industry jargon, or colloquial. Finally, a poor layout can diminish the value of the report by making it look unprofessional. (Wiedersheim-Paul and Eriksson, 2001). We are aware of the problems related to the aforementioned sources of error. However, we have tried to minimize their effect, especially by focusing on the correct formulation of the research question. The largest sources of error are arguably related to the sampling, as we draw from a small study population even a smaller sample. The generalizability of our results is hence questionable; however, we seek to increase the relevancy of the study by applying it to a strictly limited population. Furthermore, we feel that being aware of the sources of error makes one less vulnerable to them.

VALIDITY AND RELIABILITY

The terms validity and reliability are used to measure the quality of research. The resources available to the researchers affect the quality of study greatly; moreover, the research methods used must be valid and reliable to gain results of scientific value. Validity and reliability are sometimes ambiguous in the sense that they overlap each other; this may cause some confusion as to their meaning. (Kinnear and Taylor, 1996).

Validity

Validity measures the suitability of the research methods to the purpose. It refers basically to whether the researcher knows what he or she is doing; are the right tools of measurement used for the right purposes? Wiedersheim-Paul and Eriksson (1991) divided validity into two categories: internal and external validation. Internal validity refers to the conformity of the models used in the research and their measurable definitions. Internal validity can thus be judged without gathering empirical data. This we tried to achieve by presenting only literature and models that were used in the analysis. External validity refers to the extent to which specific research results could be generalized to other research situations. This, we think, is harder to measure, but we tried to perform well in this respect too, by interviewing experts in event sponsorship and people who have direct responsibility over the use of it. External validity does not correlate directly to internal validity. (Wiedersheim-Paul and Eriksson, 1991). Kinnear and Taylor (1996) added that high validity can also be achieved through avoiding systematic or random errors.

Reliability

Reliability refers to the stability and consistency of results derived from research, i.e. would the results be the same if another researcher performed the same study, or if the study were conducted at a later date or with a different sample? Reliability is essentially concerned with the consistency, accuracy, and

predictability of the research findings. (Wiedersheim-Paul and Eriksson, 1991). We tried to achieve the best reliability by consistently asking the questions from all respondents and keeping the interview settings as similar as possible. However, we cannot be certain that all respondents answered truthfully to our questions, or spoke their whole minds. To minimize the risk of such, we used probing questions to follow up on the respondents' answers and gain "deeper" responses. Had the interviews been conducted by other people, the results might have been slightly different. Moreover, in no way are we able to be sure that the interviews were not biased on our part. However, as there were two of us present at each interview, we were able to make a synstudy of our personal interpretations of the interviews, or a debriefing analysis (Hair et al., 2003), which made them more reliable than if we had conducted them alone.

How is event sponsorship used to position brands?

As we expected, the main motivator for investing in event sponsorship was to gain access to the correct consumer segment and incorporate the goodwill created by the event into the brand image. As consumers may have emotional ties to events, sponsoring the right events can give an advantage that could not be gained through other media. Moreover, event sponsorship was stated to offer an opportunity to exhibit products in an appealing environment. The main drivers for success in event sponsorship were stated to be selecting the right type of event and working with the "right" partners. One can argue that the target group to which the event appeals is always the main factor when selecting the event, but beyond that, the type of event and the partners are the most important. Working with different events and partners can give a different image of the brand, and in essence exhibit different elements of the brand identity, but the connection needs to be clear enough for the consumers to see. If not, the investment in event sponsorship can turn worthless. At the time of the event, the most value was seen to be gained from the event personnel, the increased visibility of the brand and the opportunity to bring products to the consumer in a positive environment. The event personnel was seen to give a face to the brand and reflect the brand personality with their own personality. Using event personnel that is motivated and has high expertise was seen as key point in achieving good results from the investment in sponsorship, as they can improve the perceived quality of the brand. Moreover, expert personnel can exhibit the products' different uses and functions to their full extent, thus enhancing the quality of brand experiences given to consumers. The visibility can be increased on spot at the event grounds and through media exposure. Visibility in non-commercial media was seen as beneficial for the brand, because consumers tend to find non-commercial sources more reliable. Hence, the value of advertorials was seen to be much higher than commercials of equal size or duration.

CONCLUSIONS

The study began with a general interest in sponsorship and brand building. Although the research question was influenced by literature around the subject, it also set a focus on the literature that would further be needed for the study. An abductive approach was chosen, as we felt a need to mix existing theories and our own research. Furthermore, the research approach came out as conclusive, as the necessary theories were rather clear to us. The choice of the qualitative research method was also clear to us, as it provided a chance to gather richly detailed data. Moreover, we feel that a quantitative study would have required a preliminary round of interviews to build a good questionnaire. Interviews were conducted using the in-depth interview technique as proposed by Kinnear and Taylor (1996) and Hair et al. (2003), among others. Debriefing analysis was conducted after each interview, as Hair et al. (2003) have suggested. Interviews were conducted until a point of "saturation" was reached, as Gustavsson (2004) had advised. Analysis of the interviews was then done by content analysis (Hair et al, 2003), and further on by judging the results by the theoretical framework and the research question. We are aware that along the course of the study, there were numerous opportunities for sources of error. However, we feel that being aware of those sources reduces the risks set by them. As companies' investments in event sponsorship continue to grow, the need for further research increases, as well. Our study covered a small number companies and can thus only be considered a snapshot of how consumer product companies use event sponsorship to gain an advantage over the competition. Still, our study shows that the benefits sought from event sponsorship are much in line with what literature states. Out of our sample, the group that seemed to gain the most apparent benefit from

event sponsorship was the **food and drink brands**. The main reason for this is that they are able to produce **high-quality brand experiences** for a great number of event visitors, as they can hand out product samples very quickly and still exhibit brand personality through their event personnel. Moreover, the food products can easily be given out in such a way that they must be imbibed on location, whereas e.g. cosmetics samples are rarely used on location. Cosmetics brands can arguably produce more memorable brand experiences on location by offering the services of e.g. professional make-up artists or hair stylists, but as these services take much more time than giving out food samples, the benefit gained by food brands can be argued to be greater. The most apparent flaw in our respondents' use of event sponsorship, as we noted, was the lack of proper measurement of effects. As large-scale event sponsorship can involve huge investments, the benefits gained through it should be very clear and apparent.

RECOMMENDATIONS

Based on our findings, we would have to recommend that food brands focus heavily on event sponsorship as a form of marketing communication. The apparent ease of producing brand experiences coupled with the opportunity to prove the product's taste advantage offers food brand marketers great opportunities to diversify their marketing mix and bring their brand closer to consumers. However, we think that event sponsorship is a suitable marketing channel for most consumer products and other types of products as well, as it offers the possibility of giving a "face" to the brand and positioning the brand as a one that is interested enough about the consumers to meet them face-to-face.

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THE IMPACT OF MASS MEDIA ON ESTABLISHMENT OF DESTINATION IMAGE IN GLOBAL RECESSION CONDITIONS: THE CASE OF BALCAN THEATRE FESTIVAL

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The media has become a major tool of awareness and it has brought the wonders of the world and the excitement of various natural environments to millions of people.

The aim of our paper is to investigate the effects of the products of mass media on tourism through locations induced by movies and commercial advertisements. More specially this study examined the relationships between the perceptions of movies or television- induced affective response; the perceptions of movies or television- induced attributes and movies or television – induced destination images on tourism.

Self- administrative questionnaires developed to achieve the purpose of this research were disseminated and collected during Balcan Theatre Festival held in Albania. Descriptive analysis were employed to overview the general outcomes of results.

The our hypothesis were as following:

H1: *recognition of television induced affective response shall have some meaningful relations with images of the sightseeing place.*

H2: *recognition of television induced attributes shall have some meaningful relations with the images of the sightseeing place.*

18 attributes from the emotional stimulus and the adjectives of the emotional reactions were selected that can be effectively applicable to this study and presented 18 various images and measured the relevant data by Likert Scale of 5 points.

The empirical analysis indicate that movie or television induced affective response factors such as refreshment romanticism freshness have a positive impact on the destination image factors such as uniqueness and cleanliness. This relevance suggests that tourists who have perceived the feeling of joy or excitement at the movies or television movies will have a tendency to be more exciting fanatastic about the filming destinations.

This paper has demonstrated that movie or television movies location attracts visitors. The main implication is the media could renew the image of filming destination through the attributes of the media perception. And it also attracts a great number of visitors to screened locations and make them more satisfied with their personal experience. Thus television related travel package should be a good marketing tool for the filming destinations.

INTRODUCTION

Regarding the people' choice of movies, past experience of individual would be considered to be the basis of their choices. Consumption of movies depends upon private experiential judgment of consumers differently from the television and internet. Considering the previous study on the perception of movies or television- induced images, Neelamegham and Jain (1999) said that goods that cannot be recognised without practical experience like movies shall be chosen by the basis of expectation and that the expectation of the goods shall have much influence on the choice of the goods. The expectations that they have presented can be classified into three categories:

At the first the expectation for core attributes (story, performance, and casting) , second the expectation for neighboring attributes (set, costumes and background music) , third the expectation for emotional attributes. Especially, they have shown that the expectation for emotional stimulus can magnificently influence on the choice of movies and the information parts of advertisement, comments and oral spread also can influence on the choice.

Images

An image can be expressed in intrinsic concepts through the relevant objects and the expression can be differently treated, which is caused by the language that are visible in the expression. These are the

aggregates of signal customs understandable by the audiences. the signals can be applied to the various media that produce the meaning of movies, the signifying practices. That is emotional perception will be the practical experience that can be obtained through the movies that the main contents that can be passed through the purchase of the movies.

Destination images

Images of tourism destinations have been rooted as very important marketing concept and various studies of the images of sightseeing places have been performed so far. Kotler (1993) said that marketers of a tour place should promote the image of a sightseeing place in the largest scale within the possible limit and they should strengthen the relevant images with the possible changes. There are some benefits that can be obtained by attraction of tourists through movies. First of all movies can advertise the photographed sites for much longer than common advertisements and the identity of the places can be secured through the development of the plot with strengthening of the photographing images by using of special effect and stars and complete camera technical dimensions.

Methodology of our study

Self-administrative questionnaires developed to achieve the purpose of this research were disseminated and collected during the event of the Balcan Theatre Festival held in Albania. Total of 600 questionnaires were collected, however 550 questionnaires of them were used for this study because some of them were insincere responses. Descriptive analysis were employed to overview the general outcomes of results.

Our hypothesis are:

H1: *recognition of television induced affective response shall have some meaningful relations with images of the sightseeing place.*

H2: *recognition of television induced attributes shall have some meaningful relations with the images of the sightseeing place.*

18 attributes from the emotional stimulus and the adjectives of the emotional reactions were selected that can be effectively applicable to this study and presented 18 various images and measured the relevant data by Likert Scale of 5 points.

STUDY FINDINGS

The table 1 provides a demographic profile of the survey participants. Of the total respondents, 65 % were female and 35 % male. The majority of the respondents (75%) were 20-29 years of age groups. The visitor survey found that over half of respondents were from Albania which tells us that residents have shown more interests for this event.

<i>Gender</i>	<i>Female</i> <i>Male</i>	65% 35%
<i>Age</i>	<i>Under 19 years</i> <i>20-29</i> <i>30-39</i> <i>40-49</i> <i>Over 50 years</i>	2% 75% 15% 5% 3%
<i>Place of residence</i>	<i>Albania</i> <i>Macedonia</i> <i>Greece</i> <i>Bosnia and Hercegovina</i> <i>Kosovo</i>	55% 15% 4 % 4% 16 %

	Turkey	2 %
	Romania	0.5 %
	Bulgaria	0.5 %
	Croatia	0.8%
	Serbia	0.7 %
	Monte Negro	0.5%
	Others	0.7 %
Marital status	Married	22%
	Single	78%
Education	High school or less	6 %
	University graduate	84%
	Postgraduate studies	10%
Occupation	Students	42%
	Clerical employee	16%
	Service employee	10%
	Professional	12%
	Teaching profession	15%
	Others	5 %

Table 1. profile of respondents

Table 2 shows the findings of factor analysis of movies or television induced attributes. The examination of the reliability of the data shows that the alpha values ranged from 0.62-0.75. Five factors were extracted, explaining 59.0 % of the total variance. The factor labels are TOPIC; DIRECTING; STORY LINE; EFFECT AND REPUTATION

Factor analysis	Loadings	Reliability
FACTOR 1 TOPIC		
Word-of mouth effect	0.72	0.74
Popularity	0.69	
Awards	0.68	
Debate aroused	0.67	
Preview	0.60	
FACTOR 2 DIRECTING		
Acting ability	0.78	0.72
Actors	0.71	
Story	0.70	
Director	0.68	
FACTOR 3 STORY VALUES		
Originality	0.784	0.70
Quality of image	0.74	
Artistic quality	0.70	
FACTOR 4 EFFECTIVENESS		
Special effect	0.792	0.690
Cinema Fshion	0.77	
Media publicity	0.60	
Original sound track	0.59	
FACTOR 5 REPUTATION		
Based on well-known novels	0.80	0.61
Genre	0.76	

Table 2. Factor analysis of movie or television induced attributes. Cumulative total variance percentage explained 59 %

Table 3 shows the findings of factor analysis of movie or television induced affective response. Five factors were extracted explaining 67.0% of the total variance. The factor labels are: REFRESHMENT; PASSION; \TEDICUSINESS; FRESHNESS AND ROMANTICISM.

<i>Factor and variables</i>	<i>Loadings</i>	<i>Reliability</i>
<i>FACTOR1 REFRESHMENT</i> <i>Nice</i> <i>Delightful</i> <i>Joyful</i> <i>Satisfactory</i>	<i>0.860</i> <i>0.82</i> <i>0.78</i> <i>0.77</i>	<i>0.86</i>
<i>FACTOR 2 PASSION</i> <i>Thrilling</i> <i>Enthusiastic</i> <i>Nervous</i> <i>Excited</i> <i>Violent</i>	<i>0.77</i> <i>0.76</i> <i>0.75</i> <i>0.66</i> <i>0.62</i>	<i>0.80</i>
<i>FACTOR 3 TREDIOUSNESS</i> <i>Childish</i> <i>Boring</i> <i>Sensational</i>	<i>0.77</i> <i>0.76</i> <i>0.55</i>	<i>0.60</i>
<i>FACTOR 4 FRESHNESS</i> <i>Unique</i> <i>Attractive</i> <i>New</i>	<i>0.77</i> <i>0.75</i> <i>0.74</i>	<i>0.72</i>
<i>FACTOR 5 ROMANTICISM</i> <i>Impressive</i> <i>Romantic</i> <i>Sorrowful</i>	<i>0.84</i> <i>0.78</i> <i>0.64</i>	<i>0.70</i>

Table 3. Factor analysis of movies or television affective response. Cummulative total variance percentage explained 67.00%

Table 4 shows the findings of factor analysis of destination image. Four factors were extracted explaining 67.3 % of the total variance. The factor labels are: MOVEMENT; UNIQUES; DEANLINESS; AND TRADITION.

<i>Factors and variables</i>	<i>Loadings</i>	<i>Reliability</i>
<i>FACTOR 1 MOVEMENT</i> <i>Busy</i> <i>Quiet</i> <i>Crowded</i> <i>Static</i> <i>Peaceful</i>	<i>-0.80</i> <i>0.78</i> <i>0.78</i> <i>0.77</i> <i>0.6</i>	<i>0.74</i>
<i>FACTOR 2 UNIQUENESS</i> <i>Unique</i> <i>New</i> <i>Unusal</i> <i>Fantastic</i> <i>Interesting</i> <i>FACTOR 3 CLEANLINESS</i> <i>Pure</i> <i>Clean</i> <i>Pretty</i>	<i>0.82</i> <i>0.74</i> <i>0.74</i> <i>0.66</i> <i>0.64</i> <i>0.884</i> <i>0.87</i> <i>0.70</i>	<i>0.82</i> <i>0.86</i>
<i>FACTOR 4 TRADITION</i> <i>Traditional</i> <i>Antique</i> <i>Affectionate</i>	<i>0.88</i> <i>0.77</i> <i>0.45</i>	<i>0.66</i>

Table 4. Factor analysis of destination images. A cummulative totalvariance percentage ewplained 67.0 %.

Canonical analysis was employed to examine the relationship between the recognition of movie or television induced affective response and images of the destination which was seen at the movies. The findings show that movie or TV induced affective response factors such as REFRESHMENT (0.590); ROMANTIISM(0.67); FRESHNESS (0.40); have a relatively significant impact on th destination image factors such as UNIQUENESS (0.74) and CLEANLINESS

(0.60)

CONCUSIONS AND RECOMMENDATIONS

The media have become a major vehicle of awareness and they have brought the wonders of the world and excitement ov various remote natural environments to millions of people.

The empirical analysis indicate that movie or television induced affective response factors such as refreshment romanticism freshness have a positive impact on the destination image factors such as uniqueness and cleanliness. This relevance suggests that tourists who have perceived the feeling of joy or excitment at the movies or television movies will have a tendency to be more exciting fanatastic about the filming destinations.

This paper has demonstrated that movies or TV location attracts visitors. the main implications in the media could renew the image of the filming destinations through the attributess of the media perception. Movie or television related travel package should be a good marketing tool for the filming destinations.

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DOES MARKETING RESEARCH REALLY “HAVE A SEAT AT THE MARKETING STRATEGY TABLE”? AN EXPLORATORY RESEARCH

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Purpose – One of the major functions of marketing research is to provide relevant and necessary information to marketing decision making process. In other words, marketing research should bring the “voice of the customer” to the strategic marketing decision making “table”. In addition, marketing research provide information to managers to be used in specific marketing actions as well as in a general manner that would allow them to understand their customers and environment in a better way for future strategic planning. However, it is a significant question whether marketing research really has a critical position in strategic marketing decision making in most of the firms, particularly in Turkey. Thus, the purpose of this study is to explore marketing research’s position in marketing decision making process in Turkish firms.

Design/methodology/approach – An exploratory in-depth interview method was used. Five professional marketing researchers and four marketing research/consumer insight managers were interviewed in Istanbul. Through in-depth interviews with the participants, marketing research’s position in strategic marketing decision making was discussed. Based on the analysis of these in-depth interviews, the role of marketing research in marketing decision making and its changing position are explored.

Findings – Marketing research surely has an important role in marketing decision making. As bringing the “voice of the market” to strategic marketing decision making process gets more and more important, marketing research managers in firms evolve to consumer insight managers. Marketing research’s role in strategic decision making is essential in especially multinational firms. That is, any marketing related decision or innovation decision needs to be based on marketing research findings. Furthermore, findings of any marketing research project could be used in scenario development for future strategic directions and for a general enlightenment in firms’ management.

Research limitations/implications – Because of its exploratory nature, this research should be considered to be a starting-point for further research. Marketing research’s actual role in determining firms’ strategic options and the extent to which the findings of marketing research projects are used for specific marketing actions should be investigated in further research, possibly through some kind of quantitative research.

Originality/value – In marketing literature, basic assumptions about marketing research show that research should be used in the marketing decision making process, and the more the marketing research inputs the more healthier would be the decision making process. However, it poses a significant question whether these assumptions about marketing research holds in reality, especially in Turkey. This study explores the validity of these assumptions and discusses the changing role of marketing research function in firms.

Keywords: Marketing Research, Consumer Insight, Strategic Marketing Decision Making

INTRODUCTION

The American Marketing Association approved the definition of marketing research in 2004:

“Marketing research is the function that links the consumer, customer, and public to the marketer through information--information used to identify and define marketing opportunities and problems; generate, refine, and evaluate marketing actions; monitor marketing performance; and improve understanding of marketing as a process. Marketing research specifies the information required to address these issues, designs the method for collecting information, manages and implements the data collection process, analyzes the results, and communicates the findings and their implications.” (AMA, 2004)

This definition positions marketing research as a fundamental business function, since the objectives mentioned in the definition are core business concerns, crucial to the success of the business and requiring management support. The definition also shows that one of the major functions of marketing research is to provide necessary information to marketing decision making process by linking the customer to the marketer through information. In other words, marketing research brings the *“voice of the customer”* to the strategic marketing decision making *“table”*. Furthermore, marketing research provide information to managers that could be used in specific marketing actions in a way that allows them to understand customers and the environment to shape future strategic planning.

However, according to Honomichl (2007), the world’s 25 largest commercial marketing/advertising/public opinion research conglomerates had revenue of \$15.5 billion in 2006, up 5.1% over 2005. The Top 25 as a group had a total revenue that is quite below in the rankings of Fortune 500 list of global firms. In Turkey the situation is more dramatic in terms of revenue of the marketing/public opinion research firms. ESOMAR’s 2008 Industry Study shows that the annual revenue of 22 participating marketing research agencies in Turkey is \$161 million in 2008 with a 16% growth rate compared to 2007 (ESOMAR, 2009).

Despite its vital importance for the success of organizations, the figures above depicts that marketing research might be underutilized in organizations. Malhotra *et al.*, (2006) think that the reason for this underutilization might be that researchers are not frequently involved in decision making process by managers. Dubof and Spaeth (2000) believe that marketing research *“can and should contribute to setting strategy for businesses, however marketing researchers or the whole industry have been rarely invited to the table of decision making where they should earn their place”* (p. v).

Huppertz (2003) claims that we are living in a world where an organization's success increasingly depends on the quality of information and analysis, and thus marketing research as a function is crucial for decision making and strategy formulation processes. On the other hand, marketing research has still does not really have its place at the decision making table to *“give voice to the data”*. Accordingly, the significant question whether marketing research really has an essential position in strategic marketing decision making in most of the firms, especially in Turkey still remain not answered. Thus, the purpose of this study is to explore marketing research’s position in marketing decision making process in Turkish firms.

THEORETICAL BACKGROUND

Managers today should make decisions in highly complex, intensely competitive and dynamic environments. This situation makes decision making process more complicated and at the same time more important compared to the past. Under these circumstances, marketing managers frequently make decisions about problems or opportunities based upon imperfect and sometimes inaccurate information. At the worst scenario, this may result in severe consequences for their firms or a big failure. At best, this can cause making less favorable decisions, and placing the firm in a less competitive or a less successful position than it would otherwise be. Samli (1996) asserts that in the era of information society neither the firms nor the world itself have not been the same, and knowing all decisions are based on some form of information, decision makers now have a better chance of making more efficient decisions. Deshpandé (2001, p. 1) notes that knowledge is the lifeblood of any organization and commonsense, experience and intuition-based

knowledge has an impact on all business decisions. Scientific research will continue to play a crucial role in affecting management's assumptions and subsequent actions. In this regard, knowledge about customers, competitors and markets coming from marketing research is most critical for marketing management.

Marketing research, of course, does not replace management experience or management skills in making decisions, but it reinforces marketing decision makers' performance by questioning commonsense and traditional marketing assumptions. In other words, marketing research provides marketing decision makers new perspectives in marketing management. Malhotra and Peterson (2001) argue that marketing research in the new millennium has becoming more crucial for firms, which are already operating in an intense competitive environment. The authors note two major reasons for increasing importance of marketing research. First, due to the development of digital and telecommunication technologies and the diffusion of related tools, the speed of business world has changed dramatically. These developments make it possible for firms to be more responsive to markets, customers and competitors through innovations, flexible systems and new channel operations. Accordingly, marketing's role in firms gained importance, since the cost of misinterpreting the trends and changes in the markets becomes more exorbitant than ever. Being one of the most important interpreter of changes in the markets marketing research's role became even more crucial in terms of bringing "*the voice of the market*" to management (Barabba and Zaltman, 1991). The second reason Malhotra and Peterson (2001) put for increasing importance of marketing research is the globalization of business operations with the end of Cold War. With more open markets, multinational firms moved into newly developing markets, and making competition more global and changing the rules of the business in almost every part of the world. Marketing research once more started to play its crucial role by providing the necessary international marketing information to the multinational firms that penetrate developing and newly developed world markets.

Blakenship *et al.* (1998) characterize the traditional roles of marketing research as measuring the potential of new products, solving marketing problems, providing inputs sometimes for marketing planning and occasionally showing the outcomes of the flawed decisions. In other words, most of what marketing research is supposed to look backward performance or present time performance. It is as a part of marketing function seldom asked to look into the future and work in the same team with other functions to plan for the future, to provide efficient inputs for really important business and marketing decisions (Blakenship *et al.*, 1998).

What Dubof and Spaeth (2000) assert about the role of marketing research in firms support this status of it. According to Dubof and Spaeth (2000), most of the marketing strategies of actual firms depend on traditional assumptions about "*the outside world of*" markets, customers and competitors, and when it is time prepare the corporate strategy for the future marketing research is rarely "*at the table for the discussions*". The authors claim that

"... marketing research (should) not be used only as a lamppost to support already agreed-upon business arguments instead of as a beacon to define future direction..." (Dubof and Spaeth, 2000, p.3)

Dubof and Spaeth (2000) point out an important reality that there are even some managers who do not use marketing research in order to understand their markets, customers, competitors and their shareholders. This reality was tried to be understood with a series of research studies beginning from 1980's. At the end of 1970's use of marketing research had been identified as an particularly important issue to be investigated formally which was also supported by AMA and Marketing Research Institute. Upon these discussions,

Deshpandé (1982), Deshpandé and Zaltman (1982, 1984, 1987 and 2001) initiated to explore the issue of marketing research use with a series of researches on the topic. Their main findings in these research studies could be summarized as follows:

- Managers and researchers clearly have a different perspective on the objectives and value of the marketing research efforts. Understanding the other's point of view would probably lead to greater use of the marketing research.
- Managers do not like surprises. So researchers who prefer to undertake a more exploratory style of research should be careful about its possible effect on managers. The manager's "*comfort zone*" for results of exploratory research should be discussed up front.

- Sheer quality of a research report is usually not enough. If the results are going to make a positive impact, the manager and researcher should be developing relationship throughout the project.
- Trust between the parties is a key factor affecting the use of marketing research, and the perception of that trust will have a great effect on how the report's quality is ultimately read.
- If a product is already at a mature stage of its life cycle, or especially if it is in decline, managers should be open to more exploratory kinds of research.

Again during 1980's Krum *et al.* (1987-1988) analyzed how researchers and users of research in Fortune 500 manufacturing firms perceive the importance of marketing research at each stage of marketing research process. They explored many aspects of the research process and the degree of similarity between the researcher and the research user. According to this study some significant areas of conflict occur in the perception of the role of marketing research. The first key area of conflict is in the area of whether the researcher should be involved in marketing strategy development for the firm. The results of the study could be interpreted in such a way that the researchers should be involved in strategic planning and implementation only to the extent that they provide information as to what the research objectives should be and what kind of data should be gathered. This perception somehow accepts the involvement of the research in the strategy process in restricted form. The second disagreement occurs in the area of whether researchers should restrict their activities and offer advice when asked. Research users are more keen on this alternative that they would like to see the researchers in a more limited role. Whether the researchers should be able to translate marketing research findings into courses of action for management to follow is the third important area of conflict. While the researchers agreed on this task of researchers in the firm, research users were believing at that time it is research users' responsibility to develop the courses of action from the research findings (Krum *et al.*, 1987-1988).

However, authors like Huppertz (2003) points out that at the 2002 Annual Marketing Research Conference of AMA, industry leaders suggested that researchers have been too wrapped up in executing the requests they receive from their brand marketing colleagues – in other words, taking and filling orders which is quite a upsetting stance. In addition, as stated by Huppertz (2003), industry leaders called on researchers to “*move beyond the task of simply crunching numbers and churning out results; they need to understand the underlying business issues at stake and adjust the information they gather and how they analyze it.*” They encouraged researchers to build stronger relationships with other disciplines and departments of their companies to demonstrate day-to-day value. Marketing researchers should follow these suggestions to gain wider respect within their organizations.

Similarly Malhotra *et al.* (2006) indicate that presenting only data as findings of the research will overwhelm managers with detail, which would only reinforce the negative perception that the researcher wants to gratuitously add complexity to the issues facing the firm. Instead, marketing researchers should desire to provide high-impact research and strive to synthesize or grasp larger meanings emerging from their analyses. The implication here is that the researcher needs to understand the current context for decision makers.

Everett (1997) thinks that marketing researchers should reinforce their role in the marketing decision-making process through establishing an important link between customer knowledge and business strategy. In today's turbulent business environment, firms should continuously tune their marketing strategies to keep abreast of increasingly sophisticated customers and products. To do that, strategists need a continuous flow of relevant customer intelligence. In this regard, research's role has always been to speak for the customer and customer understanding needs to be integrated into a strategic context (Everett, 1997).

In summary, marketing research surely has an important role in marketing decision making. Since bringing the “voice of the market” to strategic marketing decision making is becoming more crucial than the past, it is possible to say that marketing managers would appreciate the significance of marketing research more in the near future.

METHOD

Purpose of the Study

The purpose of this study was to explore the position of marketing research in a general manner and its role in marketing decision making process in Turkey. In other words, it is really an important question whether the basic assumptions about role of marketing research in marketing decision making process hold or not in Turkey. We also aim to explore whether there is a change in role of marketing research function in Turkish firms. Accordingly, we decided to start with two basic questions:

1. What is the position/perception and use of marketing research in Turkey in a general manner? Are there any differences in the perception or practices of marketing research in Turkey compared to developed countries in terms of marketing research use?
2. Does marketing research have an effective role in strategic marketing decision making process in Turkey? Are there any significant differences between marketing research users (client firms) according to origin or industry, etc?

Data Collection

Since our research follows an exploratory approach, we decided to conduct a qualitative research with in-depth interviews that would provide the best technique to uncover the issues addressed here. Marshall and Rossman (1999) suggest that in-depth interviews enable participants to tell the researchers what is important to them in their own words, not in terms of some predefined responses, or not just in terms of what is expected to be important by the researchers.

Five commercial marketing researchers and four marketing research/consumer insight managers were interviewed in Istanbul in March 2009. The interviews lasted from one hour to two hours in length, and were audio taped during the interview. We followed the accepted interview procedure of working from general to specific questions during the interviews. We prepared a semi-structured flow of questions to be asked during interviews, which starts with some general questions on the issue and continues with other questions that probes the general issues deeper. After conducting the interviews, we transcribed the audio tapings, and then analyzed the data systematically.

Sample

Because of the exploratory nature of our research, our primary goal was to investigate the position of marketing research in Turkey through the eyes of professionals of the field. To serve this goal, we interviewed marketing research professionals, either working as a marketing research executive/manager in a firm or working as researcher/research executive in commercial marketing research firms. Thus, we chose the participants according to *Maximum Variation Sampling* strategy to ensure variation among respondents. As Patton (2002) states this strategy of purposeful sampling aims at capturing and describing the central themes that cut across a great deal of variation (Patton, 2002, p. 235).

For maximizing the variation in the sample, we tried to include marketing research managers both from multinational and national firms, and researchers from commercial marketing research firms. In choosing the researchers from commercial marketing research firms, we decided to go to the largest marketing research firms in Turkey with the assumption that they would have much more information about the industry as a whole and the client firms' perceptions. Participant characteristics are summarized in Table 1.

<i>Participant</i>	<i>Gender</i>	<i>Age</i>	<i>Marketing Research Related Experience</i>	<i>Profession</i>
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Arzu	F	39	15	Freelance marketing researcher, former marketing research manager of a multinational firm
Burcu	F	38	14	Associate director of a multinational marketing research firm
Hasan	M	45	20	International branch director of a multinational marketing research firm
Dilara	F	36	13	Marketing research executive of a domestic firm
Hande	F	40	20	Managing director of a multinational marketing research firm
Ceyda	F	35	12	Marketing research manager of a multinational firm
Ahmet	M	49	24	CEO of a multinational marketing research firm
Oya	F	32	10	Marketing research manager of a domestic firm
Irem	F	39	15	Consumer insight manager of a multinational firm

Table 1. Participants' Characteristics

Findings

Increasing globalization, stronger competition worldwide and the mergers of large marketing research groups affect the position and use of marketing research in Turkey, like any other country in the world. Another important determinant that improves position and use of marketing research is the changing consumers and customers in the last two decades. Consumers and customers, who are equipped with more information and provided with more opportunities than ever, seem to be more alert and conscious compared to the past. In this regard, they force firms to know more about them and understand them better. As a result, marketing research's role stiffens in the world as well as in Turkey.

"Competition is now stronger, more intense, not competition but Competition with capital C. Firms do not just compete with firms in the same industry, competition is now supra-industrial... At any point you touch the consumer, you need to benchmark yourself with best practices in all industries... Thus, marketing research is gaining more importance since it is the tool that measures performance through the eyes of consumers and that brings what customers think to the firm..." (Hasan)

The position and use of marketing research

Despite its strengthened position in the world, the situation in Turkey is somehow different than the developed countries mostly due to relatively short history of the industry. According to Hande;

"We live stone age and space age at the same time in terms of marketing research use here...(Hande)"

However, marketing research is a dynamic industry growing rapidly in Turkey, except the times of financial downturns, and its rules are changing with globalization.

"The position of marketing research is changing rapidly, like everything else in the business world..." (Ahmet)

Though the importance of marketing research has been approved by large manufacturing and services firms, there are some doubts about its benefits versus its costs as expressed like;

"I haven't heard anyone saying 'research is useless'. Everyone is very well aware of the fact (its benefits). 'Marketing research is an important input of the marketing management process' is a connotation that everyone approves but some people could not even decide whether research is a spending or an investment and they could not predict the return of marketing research..." (Hande)

Interviews showed that all participants pointed out the very significant distinction between multinational firms and domestic firms in terms of marketing research's position and use. Ahmet asserted three categories of firms according to marketing research use;

“One of the categories is institutionalized multinational firms. They have standard procedures for marketing research. It moved beyond the preferences of managers. For example, when they are developing a new product they have to do this, this and this kinds of research and make this as an intrinsic process... Marketing research departments in these firms are now started to be called as ‘Consumer Insight Groups’ or ‘Consumer Knowledge Departments’. Conducting research in these firms became a standard protocol long time ago and it is step that must be taken before relevant decisions made. Managers of these kind of firms do not have the chance to say ‘I like this ad, let’s air it’. Any decision of this kind is taken after the standardized researches are conducted..... The second category consists of domestic firms which are more institutionalized. They are established firms and get in marketing research like multinational firms, but not at the same degree yet. They are more like ‘in middle of the road’. I mean, they already established marketing research departments, but trying to are establish them ad consumer insight departments like the multinationals. But, since they are in the middle of the road and could not standardized marketing research procedures as an input in decision making process, manager preferences or manager decisions still plays a more important role. Large but less institutionalized domestic firms fall into the third category. These firms experienced a rapid growth but mostly due to their entrepreneurial nature and they are at the beginning of the road. Occasionally they might conduct one or a few researches one year, but the next year no one knows. They usually do not have a marketing research department in house, a marketing manager or one of the marketing managers is held responsible for marketing research...” (Ahmet)

Hasan suggested a similar categorization of firms in terms of marketing research’s position and use, but detailed it with two more categories and being more optimistic about the large domestic firms;

One position for marketing research is to exactly what the research findings discovered. For example, developing a product just as the research results show. This is a rare case, since here you put all the risk on research. Besides not every research project tells you what to do exactly by nature. The second position for marketing research is being considered as a supportive tool for decision making. We are talking about making decision depending on research results, which I myself highly recommend. Research is a product that is effective decision making, but not the thing that makes the decision. Large firms which incorporated a thorough marketing research culture – what I meant here by large firms is the large multinationals plus large domestic firms – lies in this category. They do not conduct research occasionally. They have marketing research programs, they assign a budget for research at the beginning of the year, and they use their research budget properly. Some of the domestic firms in this category even conduct research in foreign markets. The position or the third kind of usage comes out of curiosity. They are the ‘oh, let’s see what has happened’ type of firms. They are quite far from implementing research results with commitment. Their only motivation in conducting research is to satisfy their curiosity. The fourth position or use for marketing research is the misuse of it. Some firms or managers use marketing research only when the results of the research support their decisions, otherwise they don’t use research. They sometimes might be large domestic firms that are far away from any kind of research notion, or sometimes middle scaled firms, but in short we can say that these are firms that do not yet institutionalized. The fifth position is to use no research in any decision which another fact in Turkey...” (Hasan)

Other participants also have similar views on the position or use of marketing research in Turkey:

“ For example, beyond the existing facts, people in the world are trying to predict the future (of the markets). On the other hand, here there people saying as shallow as ‘I aired an advertisement, is it heard, is it known?’ or ‘I am going to develop an ad but there is no need for research’... ” (Hande)

“We do not make decisions without marketing research in our company. Every gut feeling must be tested with an appropriate research. We have a very important and strong brand. No one can dare to harm it just upon gut feeling. Everything must be checked first, ‘what would the consumers think’, ‘would this ad reinforce or harm our brand image’, etc... We have strict guidelines about which research should be done at each stage of the decision making process. Other than this, we conduct long term researches to see what could be the future trends among our consumers or customers... Marketing research is strategically used in every aspect of decision making in our company...” (Ceyda)

“When I was working in Company X (large and established multinational FMCG firm), everything, every decision about every step of, for example, new product development went through a marketing research process. We had an innovation funnel where any idea went into, then tested by stepwise marketing research projects till the end of the funnel... Multinationals are really different. There are written procedures showing what research to do in the next step, which all the marketing managers follow strictly... Now I am serving to domestic firms mostly in FMCG industry. They are conceiving the notion of marketing research better every day, but they are still not at the same grade with multinationals. Some of them take marketing research seriously but I had to work on them. I had to teach them how to do research, how take action on research...” (Arzu)

“So much has changed since I began working in this company. We are, as you know, a large domestic firm, and we are different than the multinationals. We are, for example, still a family firm, but we are improving rapidly in terms of using marketing research in our decisions. The best indicator of this is the significantly increasing research budget from year to year... We are using marketing research results in our critical decisions, like developing new product lines, which could otherwise be very much costly for the firm...” (Oya)

“Multinationals are of course different, especially the ones in FMCG industry. I myself mostly work with business-to-business firms which have totally different concerns and different competition rules. They are much more hungry for bits and pieces of information. They use research results but not as much as the multinationals or FMCG firms, and they do not have standardized research use principles yet, so they might not use all the research result in their decisions...” (Burcu)

“We are strictly using marketing research results in our company for making decisions. We have solid guidelines showing us what to do at every stage of marketing decisions. It is something like a corporate culture...” (Irem)

Marketing research’s role in strategic decision making

Our study showed that marketing research has an important role in strategic decision making is at multinational firms. Some of the domestic firms are in the same direction with the multinationals, but most of them still following from behind or even not on the same road. As mentioned by Ahmet, Ceyda, Hasan and Oya, multinational firms strict guidelines for using marketing research in their strategic decision making processes, and also in their daily tactical decisions too.

“No one can say that ‘I will invest on this without checking it with a research’... If you are to change, let’s say, something about the packaging you need to first test it with consumers, you need to learn what they would think, and then you can do it. You do not have the chance to do any changes in any part of the product just by feeling... We have forecast meetings at the end of the year where all functions, like even finance are invited. They come to the meetings, listen to the forecasts for the future and then they prepare their projections accordingly...” (Ceyda)

“Any innovation idea should be tested through pre-determined marketing research projects before any kind of implimatation...” (Irem)

However, domestic firms present a more fragmented picture about the role of marketing research in strategic decision making. On the one hand, there are quite a large number of domestic firms which do not even conduct marketing research;

“Construction industry is one of the locomotive industries for the past several years in Turkey. But do any of the large construction and real estate firms conduct marketing research? Do you know any? I don’t know. If any one of them had conducted I would have known... Marketing research, as supportive function, does not at the place compared to where it should be...” (Ahmet)

“We are much better than the past in marketing research use. But we are a domestic firm and not the leading company in terms of the marketing research’s role. On the other hand, depending on the competition we started to use more and more research in our decisions, I other words, marketing research is becoming more important year by year...” (Dilara)

“Some of the domestic firms, which are not small in number, are conducting research occasionally only of curiosity, or even sometimes in a feeling like ‘Oh company A did it, then I should do it as well’... We need to go a long way to explain them the real importance of marketing research...” (Hasan)

Mostly it is hard for researchers to know whether their research results are used in decision making, especially for the ones working at commercial marketing research firms. They deliver their research reports, they discuss on the research results, sometimes come to a mutual understanding about the actions to be taken upon research results. But then they do not have the chance most of the time to track whether the formerly agreed-upon actions have taken or not, or they do not hear any feedback about results or use of the marketing research project.

“After finishing the project we usually hear nothing about the research from client. They do not give us any feedback on project basis, but only with performance measurement tests we conduct with our clients at the end of the year... On the other hand, if you have long and sincere relationship with the client sometimes in between the lines you hear something but nothing formally...” (Burcu)

“I feel happy when the client says in a meeting ‘after that research you said so, we did so, then the result was so as you estimated’. It is a good thing to hear some feedback about what you do...” (Arzu)

For in house marketing researchers, it is some kind of a routine to attend to the strategy meetings, especially for the ones who are working in multinationals.

“We have to attend strategy meetings with marketing research results with us. Because all managers, from marketing to product and sales, want to hear our actual situation and forecasts about the future...” (Irem)

however, for researchers from commercial marketing research firms attending any client’s strategy meeting is or being asked to comment on strategic issues at any kind meeting is some kind of new perspective which they feel they are being taken seriously with what they do. Some of them feel like they are achieving the privileges of advertising agencies.

“Sometimes they (the clients) invite us to strategy meetings or important meetings along with ad agencies. I like to be there, because it makes me feel like they consider me and what I do important... A few months ago one of our clients invited me to their strategy meeting saying that ‘what you showed us about our firm was really useful and helpful. We would like to see you in the meeting where we discuss these issues with our management’...” (Burcu)

In addition to being invited to important meetings of client firms, some significant developments make marketing researchers feel more optimistic about the future of the industry;

“One of our biggest clients, which is large domestic firm with a real research notion, established some kind of a communication committee for her brand a few years ago. The committee was consisting of the CEO of the firm, marketing managers, sales managers, advertising agency, public relations agency, in house marketing research manager, and yes our general manager. Someone outside firm along with ad and PR agency was on that committee. I think this is one of the best examples where our job is now being considered an important function of the decision making process...” (Hasan)

DISCUSSION AND CONCLUDING REMARKS

When we start our study in order to explore the position and use of marketing research in Turkish firms, we did not expect to see such a fragmented picture about the whole industry. However, at the same time, it is not too much surprising in an emerging country like Turkey. Increasing globalization, stiff competition and rapidly changing expectations and behaviors of consumers are changing the face of marketing research profession in Turkey perhaps not rapidly as it should be. As one of our participants said, we are “living the stone age and the space age at once” in terms of the position and use of marketing research. On the one hand, there are the multinational firms, which are very strict in using marketing research as a supportive tool in every decision with great proficiency and the same time teaching the whole industry what marketing research really is. On the other hand, there are large or medium sized domestic firms, which never consider

marketing research as a management tool for decision making. It is possible to say that important role of marketing research is not fully appreciated in Turkey yet.

Although the scenery does not seem so bright for the industry or the profession, it is not all too dark, as well. Marketing research surely has an important role in marketing decision making in multinational firms, and in some large domestic firms as well in Turkey. Even in some firms, particularly in multinationals, marketing research managers in firms evolve to consumer insight managers or consumer knowledge managers, who have two primary tasks: The first task is to transform marketing research results into action routes that the firm should take in marketing decisions. The second task is to draw consumer/customer insights for innovation ideas or future scenarios from research results as well. These changes in the profession or the industry create more optimistic expectations about marketing research for the future.

Furthermore, recent developments about efforts of marketing research “to earn a seat at the strategy table” seems to have a real potential to be realized. Malhotra and Peterson (1999) suggested some trends in marketing research for the future at the dawn of the new millennium. Marketing research’s position in Turkey seems to be affected by these emerging trends:

- Marketing researchers will participate more and more in marketing decision making
- Managers will participate more and more in marketing research
- More and more marketing research will be undertaken as an on-going business operation
- The marketing research industry will become more aggressive in positioning itself as distinct from selling (Malhotra and Peterson, 1999, p. 217).

As a result, we can speak of marketing research as an established and growing industry in Turkey with a great potential of growth and progress. However, there some steps to be taken to realize this potential:

- Practices of multinational firms should be considered and exemplified as best practices
- Marketing research industry or marketing researchers should play the role of a tutor to make Turkish firms understand the importance and benefits of marketing research
- Marketing research industry as a whole should turn their focus to be consumer insight providers and consultants rather than mere data providers and catch up with the pace of the multinational firms
- While doing this, marketing research industry should try to position itself as supportive tool for decision making process instead of back office workers
- At the same time, spending more time to train the research personnel in accordance with the needs and expectations of their client firms seems crucial.

This study also poses some limitations as well. Our goal was to discover the position and use of marketing research in Turkey with a qualitative research and in-depth interview technique. Therefore, it is conducted with varied, but small sample from the profession that would not allow the findings to be generalized to the whole marketing research industry. However, the results of this study may provide useful guidance for designing a more structured research on marketing research’s position and use in the future. Besides, other qualitative and quantitative researches with marketing managers or marketing research users would be of great help to understand the scenery of marketing research thoroughly in Turkey.

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EFFECTS OF ETHNOCENTRIC TENDENCY ON CONSUMERS' PERCEPTION OF PRODUCT ATTITUDES FOR FOREIGN AND DOMESTIC PRODUCTS

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Purpose – The first aim of the study is to determine the relationship between consumer ethnocentrism and product attitudes including country of origin. Investigating whether ethnocentric tendencies and product attitudes vary by demographic variables is the second aim.

Design/methodology/approach – Data for the study were collected through a face-to-face survey of consumers in Turkey. Of the 300 questionnaires distributed, 283 were accepted as usable for the study. Consumer ethnocentrism was measured by CETSCALE.

Findings – The findings show that shoppers with high levels of ethnocentricity are more likely to be less educated and to earn lower monthly income than those with low levels of ethnocentric tendency. As expected, those with low ethnocentricity levels perceive foreign products more favorably than their high-ethnocentricity counterparts.

Research limitations/implications – The study has two limitations. First of them is the fact that the research sample was located in only one Turkish city is a clear constraint on the generalizability of the results. Second, consumers were asked to evaluate the attributes of foreign-origin products without reference to a specific product group.

Practical implications – These findings provide useful market intelligence for marketing strategists targeting Turkey, but must be generalized with caution.

Originality/value – This study both supports and contributes to the existing literature by examining consumer ethnocentrism and country of origin together.

Keywords Consumer ethnocentrism, country of origin effects, attitudes, Turkey

Paper type Research paper

INTRODUCTION

Knowing consumers' buying motivations, and developing close relationships with them, are critical means of competition for firms in today's increasingly crowded marketplaces. Of special significance in the case of economies relying significantly on imported goods are consumer attitudes towards foreign and domestic products, and the ethnocentricity that affects them. There are two general streams of research in the area: Consumer Ethnocentrism and Country of Origin Effects. As the literature review will show below, a number of studies have analyzed the effect of the behaviors and attitudes of highly ethnocentric consumers on foreign products. These studies have provided insights in understanding individual and organizational attitudes towards domestic and foreign products, which in turn assists managers to form effective marketing strategies in given markets.

Other studies have focused on the country-of-origin effect, sometimes called the 'made in' effect, under the influence of which consumer perceptions about products are influenced by the image of producer country (Huddleston *et al.*, 2001; Kaynak and Kara, 2002). These studies have attempted to measure consumers' country of origin perceptions on various product groups produced in different countries (Beverland and Lindgreen, 2002; Elliott and Cameron, 1994; Garland and Coy, 1993; Han and Terpstra, 1988; Kaynak and Cavusgil, 1983; Lawrence *et al.*, 1992; Monrai and Monrai, 1995; Watson and Wright, 2000).

Country of origin effects have also been attributed to consumer buying behavior (Ettensen, 1993), product image (Peris *et al.*, 1993) and consumer perception of domestic and foreign product/service attributes (Kaynak *et al.* 1994; Stratton *et al.*, 1995). The findings from these studies indicate that many consumers tend to buy products from their own countries in preference to foreign products (Bilkey and Nes, 1982; Samiee, 1994). When they have to choose among foreign country products, they tend to prefer those from countries

with similar cultures to their own over those from culturally distant countries (Heslop *et al.*, 1998; Wang and Lamb, 1983; Watson and Wright, 1999).

Country of origin studies presuppose that consumers use intrinsic cues, such as style or design as well as extrinsic ones such as price or branding, as indicators of quality in product evaluation. Such studies must be differentiated in some respects from consumer ethnocentrism studies, which assume a social acceptability, since the customer's product decision process of customers focuses on the producer country as a product attribute rather than as an indicator of social acceptability (Huddleston *et al.*, 2001).

Reported studies have found the presence and strength of relationships among the consumer ethnocentrism, product attitude and demographic variables to vary in different countries. Therefore, there is a need to do more research into different cultures, and this paper accordingly aims to explore the relationship between consumer ethnocentrism and product attitudes including those relating to country of origin. It also investigates whether or not ethnocentric tendencies and product attitudes vary with demographic variables.

The focus is on Turkey, which has been transformed since the economic reforms begun in 1981 by economic growth and relative political stability into an important commercial center with a vibrant and lucrative consumer market. In recent years, the growing size of that market, its increasing disposable income and the greater sophistication of its members and its Turkish consumer market in size as well as consumer wealth and sophistication has attracted significant attention from multinational companies (Kaynak and Kara, 2002). The study reported here offers market intelligence about Turkish consumers' ethnocentric tendencies and their evaluation of the attributes of foreign and domestic products attributes to marketing strategists operating in Turkey.

This study is structured as follows. First, the literature of product attitude, country of origin effects and consumer ethnocentrism is reviewed and summarized. Second, research hypotheses are presented and tested. Finally, the findings are analyzed and discussed, conclusions are presented, and limitations identified.

LITERATURE REVIEW

Product attitude and country-of-origin effect

Product attitude is commonly defined as consumers' overall evaluative judgment of a product's attributes, such as style, brand, and quality. In general, country of origin affects consumers' product evaluation because they assess a product on the basis of information cues available (Kaynak and Kara, 2002). Country-of-origin research assumes that, when evaluating products, consumers use intrinsic cues, such as style or material, and extrinsic cues, such as price or brand, as indicators of quality (Huddleston *et al.*, 2001). Country of origin effects is used as an important cue in forming positive and negative influences of a product's country of manufacture, and hence affecting decisions and purchases (Elliott and Cameron, 1994; Mitchell and Greatorex, 1990; Watson and Wright, 1999). Furthermore, a product's country of manufacture can be more important in shaping customer attitudes and purchasing decisions than brand name, price and quality (Lanz and Loeb, 1996; Okechuku, 1994). Evidence from some studies suggest that consumers favor products from countries that they find culturally, politically or economically closer (Crawford and Lamb, 1981; Kaynak and Cavusgil, 1983; Lanz and Loeb, 1996) to their own country. According to Huddleston *et al.* (2001), there is a linear relationship between a country's image and consumer perceptions for the quality of goods produced in the country. Consumers may assume that more developed countries produce better quality products (Huddleston *et al.*, 2001).

However, a positive relationship between country image and consumer perception of foreign products cannot always be assumed (Ozsomer and Cavusgil, 1991). Bilkey and Nes (1982), have identified studies where a negative correlation between these two variables was found. Al-Sulaiti and Baker (1998) assert that knowledge of the country of origin is especially very influential when there is insufficient knowledge on other variables. However, it is difficult to generalize on how this influence occurs.

The effect of country of origin on product evaluation has been studied in four main ways (Kaynak *et al.*, 2000): single-cue studies, multi-cue studies, conjoint (trade-off) analysis, and environmental analysis. In the first of these, consumers are required to base their evaluation decisions on both intrinsic cues (e.g. design and tastes,) and extrinsic cues (e.g. warranty, brand name and price) (Bilkey and Nes, 1982; Han, 1990; Kaynak and Cavusgil, 1983). In the second group of studies, country of origin is among a variety of factors that a consumer considers when selecting eligible products and making ultimate purchasing decisions (Johanson, 1989; Johanson *et al.*, 1985; Wall *et al.*, 1992). In the third group, researchers attempt to provide a measurement standard for how much consumers value respective attributes of foreign products compared to the domestic alternatives. (Akaah and Yaprak, 1993; Klenosky *et al.*, 1996; Okechuku, 1994). In last group of studies, the main emphasis is on the effect of various environmental factors on consumers and company decision makers (Cordell. 1992; Papadopoulos *et al.*, 1990).

The focus of country-of-origin studies can further be classified by four main areas of comparison. These areas include region (Schweiger *et al.*, 1995), country (Barret, 1996), product type (Han and Terpstra, 1988), and consumer types (Kaynak and Küçükemiroğlu, 1992).

CONSUMER ETHNOCENTRISM

'Ethnocentrism' refers to the tendency of individuals to see their cultural group as proving the norms for acceptable behaviors and preferences. Highly ethnocentric individuals are intolerant and judgmental with respect to cultures different from their own (Booth, 1979; Martinez *et al.*, 2000). They perceive ethnic and national symbols and values as a source of pride, while often despising the values of others (Martinez *et al.*, 2000).

Analyzing ethnocentrism together with consumer behavior from the perspective of consumer economic behavior results in "Consumer Ethnocentrism". "Consumer ethnocentrism" expresses the effects of buying intentions with regard to products from the home country and from countries that are perceived to resemble or differ from it (Kaynak and Kara, 2002). Consumer ethnocentrism calls into question the appropriateness of preferring foreign-made products over domestic products (Shimp and Sharma, 1987). Consumers who have a high tendency to ethnocentrism will perceive the quality of local products to be higher than foreign equivalents (Kasper, 1999; Sharma *et al.*, 1995). Cultural closeness between countries also plays an important role in ethnocentric buying behavior (Watson and Wright, 2000).

According to Huddleston *et al.* (2001), consumer ethnocentrism is expressed by economic behavior such as purchases and boycotts, based on the fear that foreign-made products harm individuals and national economies. It gains moral and social dimensions when a consumer avoids or prevents others from buying imported products because of this concern (Myers, 1995; Ozsomer and Cavusgil, 1991).

Positive relationships between consumer ethnocentrism and buying behavior have been found by some researchers (Herche, 1992). However, the same relationship is not apparent in all studies of these concepts (Good and Huddleston, 1995). According to McIntyre and Meric (1994) highly ethnocentric consumers are more likely than the less ethnocentric to accord more importance to the place of manufacture of goods and to prefer local products. The importance of a product to the consumer also influences ethnocentric perceptions. Consumers tend to be less ethnocentric for the products that they perceive as necessary in their daily lives (Sharma *et al.*, 1995). Kucukemiroglu (1999) found that consumers who are non-ethnocentric tend to have more favorable beliefs, attitudes and intentions for import products than do ethnocentric consumers in Turkey.

Shankarmahesh (2006) has reviewed the antecedents of consumer ethnocentrism and classified them in to four main categories; socio-psychological, economic, political and demographic. Recently, Altintas and Tokol (2007) have identified three main constructs of antecedents of consumer ethnocentrism; xenophobia, negative attitudes towards foreigners and conservatism. Their results show that xenophobia and conservative values influence ethnocentrism, but not negative attitudes towards foreigners in the Turkish market.

Studies that analyze the relationship between demographic variables and consumer ethnocentrism have found that consumer ethnocentrism correlates with age positively, but education level negatively (McLain and Sternquist, 1991; Caruana and Magri, 1996). However, there is not a relationship with gender and marital status (Shimp and Sharma, 1987; Caruana and Magri, 1996). In addition to such demographic factors, others such as beliefs, intentions, attitudes and consciousness level may determine customer ethnocentrism (Martinez *et al.*, 2000).

HYPOTHESES OF THE STUDY

Demographic variables and consumer ethnocentrism

Watson and Wright (2000), Good and Huddleston (1995), Shimp and Sharma (1987), and Sharma *et al.*, (1995) examined relationships between demographic variables and consumer ethnocentrism and found significant differences among them. For example, Watson and Wright (2000) found that high ethnocentric consumers were more likely to be female, older, less educated, and less wealthy, than low ethnocentric consumers. Therefore it is hypothesized that:

H1. There is a significant relationship between Turkish consumers' ethnocentrism scores and their demographic characteristics

Consumer ethnocentrism and product attitudes/country of origin

The impact of consumer ethnocentrism on attitudes towards foreign products has been extensively researched and significant relationships among them found (Sharma *et al.*, 1995; Ozsomer and Cavusgil, 1991; Myers, 1995; Kaynak and Kara, 2002; Wang *et al.*, 2004; Watson and Wright 2000; Lantz and Loeb, 1996; Huddleston *et al.*, 2001). Sharma *et al.*, (1995), Lantz and Loeb (1996), and Watson and Wright (2000) found that cultural similarity is one factor that may influence the effect of consumer ethnocentrism on attitudes towards products made in foreign countries. Shimp and Sharma (1987) found that highly ethnocentric consumers evaluated imported products according to their perceived effect on the economy. Most of these studies have established that the higher the ethnocentric tendency, the more negative the attitudes towards foreign or imported products, and thus the more positive they are towards domestic products. Accordingly, it is hypothesized that:

H2. Turkish consumers exhibiting high levels of ethnocentrism will have less favorable attitudes towards foreign products than those with low levels of ethnocentrism.

H3. Turkish consumers exhibiting high levels of ethnocentrism will have more favorable attitudes towards domestic products than towards foreign products.

Demographic variables and product attitudes/country of origin, and consumer ethnocentrism

Evanschitzky *et al.*, (2008) found that consumer buying behaviour towards foreign versus domestic products can be explained by a combination of demographic variables and country-of-origin effects. Also, some studies reveal significant relationships between demographic variables and attitudes towards products. For instance, Schooler (1971), Wall *et al.*, (1988), and Good and Huddleston, (1995) found that older consumers were more negative towards foreign products than younger consumers. Significant differences between education and perceptions of foreign product attributes have been found in other studies (Good and Huddleston, 1995; Schooler, 1971; Wall and Heslop, 1986). The findings suggest that the higher the educational level of consumers, the more positive their attitudes towards foreign products. Studies have also found that the higher the income level, the more positive the attitudes towards products made in foreign countries. Schooler (1971), Wang (1978), Han (1988), and Good and Huddleston (1995) found significant differences between sex and attitude towards foreign products. The results of these studies, except Han (1988), show that females have more positive attitudes towards foreign products than men. Hence, it is finally hypothesized that:

H4. There is a significant relationship between consumers' attitudes towards foreign products and their demographic characteristics

METHODOLOGY

Sample selection and data collection

Data for this study were collected via a survey of consumers living in the city of Eskisehir, one of the largest in Turkey and one of the most cosmopolitan in respect of its demographic, social-economic and cultural characteristics. It was chosen on the strength of its consequent potential to yield a demographically diverse sample. Interviews were conducted by 20 graduate students, all of whom had been trained and given instructions about their responsibilities during the data collection process. They conducted the survey at the entrances to the largest five supermarkets in the city. Shoppers were invited to take part in the survey and, if willing, given a questionnaire to complete on the spot.

Data collection occurred over a two-week period, daily between the hours of 10 a.m. and 8 p.m. Of the 300 questionnaires distributed, 283 were accepted as usable for the study.

Measures

Questionnaires used for the research consisted of three parts. The first uses the familiar CETSCALE (Shimp and Sharma, 1987) to measure the respondents' ethnocentric tendency, modified to fit the Turkish context. This scale assumes that a positive attitude towards domestic products is a matter of national responsibility and loyalty. It has been tested by different studies in different (the USA, France, Japan, West Germany, Korea and Poland, all of which achieved a Cronbach's Alpha value of over 0.90 as an indicator of its reliability (Netemeyer *et al.*, 1991; Sharma *et al.*, 1995; Good and Huddleston, 1995; Huddleston *et al.*, 2001). As Netemeyer *et al.* observe, the scale thus demonstrates both the discriminant and nomological validity. In Turkey specifically, the Cronbach Alpha coefficient has been measured at 0.93 (Kaynak and Kara, 2001).

A member of faculty educated in the USA translated the items to which the scale was applied into Turkish. Back-translation from Turkish to English was also performed by another, also educated in the USA and in the UK, to check for translation errors.

The second part of the questionnaire contained questions relating to 'product attitudes' including country of origin. Countries chosen for the study are main trade partners of Turkey from the "triangle". They are namely; Japan and China from the Asia Pacific, the USA from the America, and France, Germany and Italy from the EU. Respondents rated products from Turkey and six foreign countries in terms of quality, performance, robustness, brand image, style, design, diversity, and price: dimensions were selected from previous studies (Kaynak and Kara 2002; Watson and Wright. 2000; Han and Terpstra. 1988). The responses for the six factors were aggregated to create a total product attitude mean value for the products of each country, which was used in the statistical analyses.

Seven countries were chosen to be the sources of foreign products, for the questionnaire. Germany, France and Italy are the European Union member countries from which Turkey imports the most products. The other four selected for the study were Japan, China and the USA. Five-point Likert scales, anchored by 1 = very good and 5 = very bad, measured respondents' evaluation of the attributes of products originating in each country.

The questionnaire also collected demographic data, specifically age, gender, monthly income, and educational level.

Data analysis

The collected data were analyzed using SPSS v12.0 software. Descriptive statistics such as frequency, percentage, mean and standard deviations were calculated. ANOVA was used to test the impact of demographic variables on consumer ethnocentrism. The independent-samples *t*-test compared perceptions of the attributes of foreign and domestic products among respondents exhibiting high and low ethnocentricity. MANOVA was employed to test relationships between demographic variables and product

attitudes including country of origin. In addition, paired sample *t*-test is used to compare highly ethnocentric consumers' perceptions about foreign and domestic product attributes.

RESULTS

Profile of the respondents

The demographic profile of the 283 respondents is shown in Table 1. More than half are male. Over two thirds had completed either high-school or university study. More than half are between 21 and 40 years old, and two thirds were classified in the two lowest income brackets out of four.

Reliability and mean values of the perceptions

Mean values, standard deviations and Cronbach's Alpha reliability are presented in Table 2. They suggest that respondent's ethnocentric tendencies were generally moderate. The reliability of these measures is good, as confirmed by an overall Alpha of 0.92.

Hypothesis testing

To understand relationships between demographic variables—and ethnocentrism, one-way analysis of variance was carried out, with the results are displayed in Table 3. These show significant differences across gender, education, age, and income. In this sample, females are more ethnocentric than males ($F = 11.969$, $p < 0.01$), consumers with low income and education level are more ethnocentric than those with the opposite characteristics ($F = 14.257$, $p < 0.001$) and education level ($F = 3.451$, $p < 0.001$), and age is a predictor of ethnocentricity ($F = 17.882$, $p < 0.001$). Therefore, *H1* was accepted.

To distinguish high and low-ethnocentricity respondents' perceptions of foreign products, the independent sample *t*-test was applied, separately for each country presented in the questionnaire. The results are shown in Table 4, showing that consumers with high levels of consumer ethnocentrism have more negative perceptions of foreign products and more positive perceptions of domestic products than do consumers with low levels. There is no statistically significant difference between the two sub-samples' perceptions of Chinese products. The results provide strong support for *H2*.

H3 asserts that high-ethnocentricity consumers will have more favorable perceptions of domestic products than of foreign products. It was tested by paired sample *t*-tests, comparing their scores relating to Turkish products with those for foreign products. The results in Table 5 show significant differences in six comparisons of attitudes to Turkish and foreign products, supporting *H3*.

To test *H4*, multivariate analysis of variance was employed. The results in Table 6 show no significant difference between demographic variables and product attitudes including country of origin; product attitudes cannot be differentiated according to gender, education, age or income. *H4* is therefore rejected.

CONCLUSIONS

Discussion or Findings

The objective of this study was to investigate relationships among Turkish consumers' ethnocentric tendencies and their product attitudes, and demographics. The research findings suggest that ethnocentric tendencies are strongly associated with demographic characteristics. For example, as education level increases, ethnocentric tendency decreases. In addition, younger and higher-income consumers are less ethnocentric than their older and lower-income counterparts, and men are less so than women. The study also found that high levels of consumer ethnocentrism were significantly associated with strongly negative perceptions of foreign products and very positive perceptions of domestic products.

The findings that gender, income and educational level are directly related to levels of ethnocentrism (*H1*) are consistent with those described by Watson and Wright (2000), Good and Huddleston (1995), and Sharma

et al., (1995). The significant relationship of high levels of consumer ethnocentrism to relative perceptions of Turkish and foreign products (H2) are also consistent with much of the literature, though the lack of significance in the case of products of Chinese origin is noteworthy. The specific connection between ethnocentrism and preference for domestic products (H3) is consistent with the findings of Watson and Wright (2000), who further found that consumers extended their approval to those originating in countries perceived to be culturally similar to one's own.

On the other hand, whereas Good and Huddleston (1995), Schooler (1971), and Wall and Heslop (1986) found a significant relationship between demographic variables and product evaluation, the results of the MANOVA tests related to H4 did not.

Managerial implications

The findings of this study potentially provide useful market intelligence for marketing strategists in both international and national firms operating in Turkey, which is a candidate to join the European Union. With countries in the Caucasus region that have similar cultures, this amounts to a fast-developing total market of more than 100 million consumers.

The overall conclusion is that companies targeting their products at market segments that include women or low-income or less educated consumers should emphasize product quality, price and product attributes, rather than country of origin.

In addition to this, foreign companies in cooperative arrangements with domestic partners could advantageously deploy brand names and the domestic images, or might support domestic values by, for example, sponsoring a major-league football team. They could at the same time deliberately select market segments that are known to be characterized by relatively low ethnocentrism.

By contrast, domestic companies can derive a real competitive advantage from inherent ethnocentricity in the marketplace by stressing their domestic image as well as the specification of their product ranges. As a case in point, a newly marketed domestic soft-drink company (Cola Turka) has built all its marketing communications strategies on its domestic brand name and image, and has captured an important market share.

Given that Turkish consumers have relatively undeveloped perceptions of Italian, German, French and American products. Thus, firms of those nationalities operating in Turkey should emphasize the quality of their products in their marketing strategies. Since Japanese origin evokes positive perceptions, the appropriate route to competitive advantage in that case would be both to emphasize the country of origin and to cooperate with Turkish companies.

Chinese products, on the other hand, are negatively perceived, probably due to low quality and low price. The only strategy obviously open to Chinese marketing planners will be to focus on price-sensitive segments of the market.

Methodological limitations

The fact that the research sample was located in one Turkish city only is a clear constraint on the generalizability of the results. Further, consumers were asked to evaluate the attributes of foreign-origin products without reference to a specific product group. Studies of broader samples from other nationalities and cultures are required to further validate the findings of this study. Future research can also enrich understanding of consumer ethnocentricity by focusing on cultural values, varied product groups, and different product features.

Despite these limitations, any study that casts light on the relationship between personal values and ethnocentric tendencies can offer important insights into effective segmentation of challenging target markets based on a clearer understanding of the life styles of local customers.

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APPENDIX

<i>Demographic Characteristics</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Sex</i>		
<i>Male</i>	163	57.6
<i>Female</i>	120	42.4
<i>Education Level</i>		
<i>Primary</i>	61	22.0
<i>Secondary</i>	96	34.0
<i>University</i>	92	32.0
<i>Postgraduate</i>	34	12.0
<i>Age</i>		
<i>15- 20</i>	59	20.9
<i>21-30</i>	86	30.4
<i>31-40</i>	65	23.0
<i>41 and older</i>	73	25.7
<i>Monthly income (YTL)</i>		
<i>Less than 400</i>	99	35.0
<i>401-800</i>	94	33.2
<i>801-1200</i>	54	19.1
<i>1201 or more-</i>	36	12.7
<i>Note: Monthly income in New Turkish Liras (YTL). At the time of study 1.38 YTL was equal to \$ 1.</i>		

Table 1. Sample characteristics (n = 283)

Statements	Mean value *	Standard Deviation	Reliability^a
<i>Turkish people should always buy Turkish products instead of imports</i>	2.52	1.33	.92
<i>Only those products that are unavailable in Turkey should be imported</i>	2.34	1.21	.92
<i>Buy Turkish products. Keep Turkey working</i>	1.88	1.05	.92
<i>Turkish products, first, last, and foremost</i>	2.65	1.24	.91
<i>Purchasing foreign-made products is un-Turkish</i>	3.74	1.21	.92
<i>It is not right to purchase foreign products, because it puts Turkish people out of a job</i>	3.12	1.25	.92
<i>A real Turk should always buy Turkish products</i>	3.48	1.26	.92
<i>We should purchase products manufactured in Turkey instead of letting other countries get rich from us</i>	2.80	1.21	.91
<i>It is always best to purchase Turkish products</i>	3.03	1.20	.92
<i>There should be very little trading or purchasing of goods from other countries unless out of necessity</i>	2.92	1.30	.92
<i>Turkey should not buy foreign products, because this hurts Turkish business and causes unemployment</i>	3.09	1.18	.91
<i>Curbs should be put on all imports</i>	3.54	1.16	.92
<i>It may cost me in the long run but I prefer to support Turkish products</i>	2.58	1.20	.92
<i>Foreigners should not be allowed to put their products on our markets</i>	3.33	1.14	.92
<i>Foreign products should be taxed heavily to reduce their entry into Turkey</i>	3.16	1.26	.92
<i>We should buy from foreign countries only those products that we cannot obtain within our own country</i>	2.55	1.27	.92
<i>Turkish consumers who purchase products made in other countries are responsible for putting their fellow Turks out of work</i>	3.46	1.66	.92
1= "Strongly agree"5= "strongly disagree" Overall Alpha = 0.92			
^a Alpha if item deleted			

Table 2. 17- Item CETSCALE Applied to Turkish Consumers

	<i>Sum of Squares</i>	<i>df</i>	<i>Mean squares</i>	<i>F</i>
<i>Sex</i>	48.105	2	24.051	11.969**
<i>Education Level</i>	13.315	2	7.658	3.451*
<i>Age</i>	37.761	1	37.761	17.882*
<i>Income</i>	93.631	3	31.211	14.257*
* $P < 0,001$ ** $P < 0.01$				

Table 3. Analysis of variance results: relationships between demographic variables and consumer ethnocentrism

	<i>COO/Product attitude</i>													
	<i>Japan PA</i>		<i>China PA</i>		<i>Italy PA</i>		<i>Germany PA</i>		<i>France PA</i>		<i>USA PA</i>		<i>Turkey PA</i>	
<i>Ethnocentric tendencies</i>	<i>mean</i>	<i>t-value</i>	<i>mean</i>	<i>t-value</i>	<i>mean</i>	<i>t-value</i>	<i>mean</i>	<i>t-value</i>	<i>mean</i>	<i>t-value</i>	<i>mean</i>	<i>t-value</i>	<i>mean</i>	<i>t-value</i>
<i>High Ethnocentric</i>	3.08		4.02		3.85		3.65		3.87		3.64		1.84	
<i>Low Ethnocentric</i>	1.92	2.974*	3.96	3.845ns	2.07	3.476**	2.45	1.576*	2.36	2.775*	2.21	2.603*	2.86	-3.055**
1= "very good"5= "very bad"														
* $P < 0.001$ ** $P < 0.01$ ns: not significant														

Table 4. Independent-sample *t*-tests: comparison of high and low-ethnocentricity consumers' attitudes to foreign and domestic products **Note:** PA = product attributes

	<i>t-score</i>	<i>df</i>	<i>Significance</i>	<i>Mean difference</i>
<i>Turkey vs Japan</i>	-2.50	124	0.001	1.24
<i>Turkey vs China</i>	-4.39	132	0.001	2.18
<i>Turkey vs Italy</i>	-4.07	135	0.001	2.01
<i>Turkey vs Germany</i>	-3.70	142	0.001	1.81
<i>Turkey vs France</i>	-4.14	129	0.001	2.03
<i>Turkey vs USA</i>	-3.68	155	0.001	1.80

Table 5. Paired sample t-test: country comparisons for highly ethnocentric consumers' perceptions of foreign and domestic products attribute

<i>Source</i>	<i>Japan</i>	<i>China</i>	<i>Italy</i>	<i>Germany</i>	<i>France</i>	<i>USA</i>	<i>Turkey</i>
	<i>PA</i>	<i>PA</i>	<i>PA</i>	<i>PA</i>	<i>PA</i>	<i>PA</i>	<i>PA</i>
	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>
<i>Sex</i>	0.435ns	3.384ns	2.084ns	2.318ns	3.463ns	3,117ns	0.489ns
<i>Education</i>	0.766ns	1.508ns	1.175ns	2.059ns	0.315ns	0.344ns	0.775ns
<i>Age</i>	2.184ns	0.933ns	0.498ns	0.756ns	1.901ns	1.757ns	1.456ns
<i>Income</i>	1.042ns	1.645ns	1.639ns	1.855ns	2.786*	1.766ns	0.294ns
* $P < 0,05$ ns = not significant							

Table 6. Summary of analysis of variance: the relationships between demographic variable and product attitude
Note: PA = product attributes

ANTI-CORRUPTION MANAGEMENT, STATE CAPTURE, GOVERNANCE AND ACCOUNTABILITY IN THE LOCAL PUBLIC ADMINISTRATIONS

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The main purpose of this paper is to test an innovative reporting and organizational model in local Italian Public Administration governance (Borgonovi, 2002; Meneguzzo, 2006) in order to monitor and prevent, control and account the occurrences of corruption, deformation and capture of the Regulatory State (Rawls, 1971; Mintzberg, 1996; Bresser Perreira, 1999; Scott, 2000; Moran, 2002; Schick, 2003). Today, the public administrations have a particular government system that is beyond the effective application of law, and they are also accountable just to people predominating through the use of corruption and bribery (Klitgaard, 1988; World Bank, 1997; Broadman H. G., Recanatini F., 2001; OECD/PUMA, 2002), ruling out the citizen's power.

Consequently, the paper aims to identify not chameleon-like political tools in order to improve political accountability and citizens' participation, switching from a government system to a responsibility governance system (Cepiku, 2005).

Keywords: Public Administration, legality, corruption, bribery, State capture, accountability, government, governance, model, dependability, policy, political consensus.

INTRODUCTION

A well-functioning public sector is critical for poverty alleviation. It must deliver quality public services that match the needs of its citizens, foster private market-led growth while managing fiscal resources prudently, and be accountable to its citizens for all actions (World Bank, 2007).

This paper facilitates learning from others experiences with ideas and practices that promote responsive, responsible and accountable public governance in Mediterranean area and in Italy in special way. Performance-based accountability is appealing because of its potential to improve government service delivery performance and to ensure the integrity of public operations, empowering citizens to demand accountability for results from their governments. But implementation of such an accountability system represents a major challenge for any public sector organization; most such reforms fail as a result of difficulties in design and implementation.

This paper provides advice on how to institutionalize performance-based accountability, especially in countries that lack good accountability systems. The paper is divided into two parts: the first part argues about public management reforms (NPM) to ensure the integrity and improve the efficiency of government operations. It outlines that in Italy more than talk of NPM should be better to speak of *Public Governance* considering a much calmer approach to reform compared to Anglo-Saxon countries (i.e., UK with *common law system*).

On the other hand, the paper highlights the causes of corruption and the cost of corruption for the society and government. It provides advice on how to tailor anticorruption programs

and how to use of both internal and external accountability system and other mechanisms of control to fight it with the aim of ensuring sustainability⁸⁴.

NPM VS PUBLIC GOVERNANCE FOR ITALIAN GOVERNMENT

The past decade has been characterized by a strong innovation legislation aimed at radically change the mode of governance and management of public administration (PA). Objective of innovation was, and still is, to create government strongly oriented towards economic and corporate culture so steeped in the principles, rules and methods that underlie the government units that have significant economic and social impact . This process of change, defined as "corporatization" of the PA, is discernible in the need to change the management and organization of individual institutions in response to new tasks and the increasingly central role they have assumed.

The local authority becomes engine of regional development, even the question "politics" that has taken place in recent years, is the daughter still the same process of change: the principles of "subsidiarity", "federalism" and others to them are accompanied by the need to derive a competitive economic and social, relations with PA more "open", that is more sensitive to the needs of the community. It is considered therefore concluded the phase of self-reference and static of PA, which is now required "to account" of what was planned, what results have been achieved and what benefits actually produced.

All this requires a new approach "to customer", new information tools, a different organization and different management criteria marked by the new principles, borrowed from private companies, of economy, efficiency and effectiveness. For example, about the separation between politics and management, however, this has been undermined at the roots attribution to the appointing political bodies. This measure, theoretically aimed at revitalizing the principle of political accountability and to combine the pair autonomy - responsibility of the manager in public, in practice it has become a tool for strengthening political control over bureaucracy, based on a misuse of power of appointment. In essence, compared to formal transfer of duties and responsibilities, control and supervision and central policy has been substantially strengthened through subtle mechanisms of control and interference.

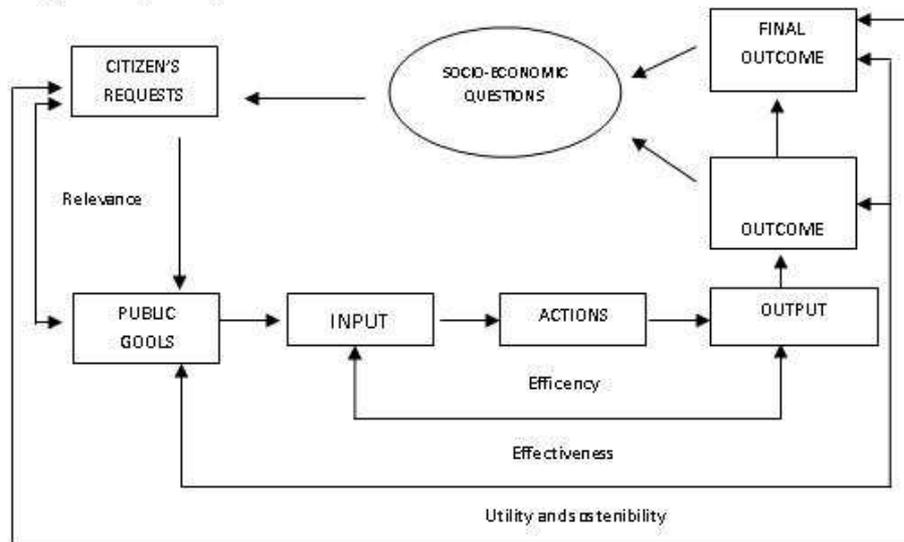
Such modernization programs have been particularly influenced by the New Public Management (NPM) approach (Aucoin 1990; Pollitt 1990; Hood 1991; Minogue 1998; Barzelay 2001), which objectives have been mainly on reshaping the boundaries and responsibilities of States, on introducing accountability and performance measures, promoting citizen-centred public services and favouring competition in the public sector. The English scholar Hood, for example, raised the issue that often the successes in the public sector, with its emphasis on so-called sigma-type values (efficiency, effectiveness, targeted investments) have been at the cost of ' honesty and fairness (theta values) or the safety and elasticity (lambda values).

As defined by Perry and Kraemer (James, Kenneth, 1983), however, one can speak of public management only when there is a *harmonious fusion* and thus a perfect balance between the general management and more traditional concerns of PA while maintaining the "values of the State and placing greater emphasis on flexibility, performance measurement and the achievement of results. Pierre, the French scholar, consider a division of society into two areas, the State and civil society in which the government represents a junction between the two. He described the government as a *output linkage* because it allows the State to send its output to the

⁸⁴ Anwar S., *Performance accountability and combating corruption*, World Bank, Washington DC, 2007, p. XVII

civil society, i.e. information and resources, and civil society to provide input or requests and questions to the State in the following format (Pollitt, Bouckaert, 2002):

Figure 1 *Input/output model*



They must behave like selfless trustees, putting the welfare of their beneficiaries (society, clients) before any personal interest⁸⁵.

But real-life public management is completely opposed, looking at the ways in which public managers and management can detract from public value. This mechanism should work through the detailed observation of the rules and principles of NPM, also addressed Italian PA to sound management in order to satisfy the needs and requests of the entire community. Indeed, when between public interests and political authority of the mechanisms involved perverse corruption and undue abuse of power, the delicate equilibrium, where public functions operate at the service of civil society, is destroyed.

One of the commonest types of this failure comes when those managing or producing a service put their own interests first and the interests of their clients or customers second – or nowhere. The sort of failures that are likely to arise will come about through disdain for any collective restraint on the ability of individuals to shape their jobs as they choose, turn public affairs into private-market transaction, and public organizations into personal property. From time to time politicians have recruited without considering the need to recruit Politicians consider that government exists to provide jobs for their supporters (McCourt, 2006).

Where that happens, public service organizations have become part of the crime problem rather than the solution, and it is particularly likely to occur in law enforcement: politicians had a vested interest in maintaining a patronage system (Anwar, 2007).

Alterations and distortions caused by an unbalanced relationship between autonomy and accountability in the management of PAs have produced in recent years dystonia and

⁸⁵ According to authoritative doctrine (Moore, 1995) public managers and their organizations play a leading role as “creating public value”, in the sense of producing services and outcomes that “add value” to society.

lacerations logical chains of meaning between the phases of administrative planning, management and control.

Some of these commonest failings are bribery and corruption .

The worthy organization Transparency International defines corruption as the abuse of entrusted power for private gain, material or not, linked to political ambitions and/or professional, a notion of exchange as a mesh network in which to insert very large number, perhaps as early too many cases of improper trade, illicit, illegal, sometimes enforced with the use or threat of violence (Borgonovi, 2009). what they have in some form: i.e. by private appropriation of public property, by accepting money from willing hands (bribery) or extracting it from unwilling ones (extortion) for performance, non-performance or prompt performance of their duties. Transforming public assets into private property can range from petty pilfering to massive illegal privatization operation or even outright sale of public office.

There is a relevant gaps between rules and conducts and then between elements of delegitimation and contradiction in PAs (Reichard, Wegener, 1988; Kooiman, Van Vliet 1993; Cassese, 2002, 2004; Frey, Benz, 2004).

This brief outline, ignoring many other aspects of the studies on public, they understand the general trend of our country to focus on the legal paradigm - administrative rather than practical.

Faced with the abstract rational measures, in contrast to the specificity of the system to which they relate, actors tend to put in place strategies for applying the provision already in the formulation stage and then, especially in the implementation of a vicious circle that see the various attempts at reform, corporatization, dispersed in many streams, which coexist in a thousand pieces as pieces of an unfinished monument to the PA (Anselmi, 2001).

Since any reform in PA must also consider the wider institutional environment where each organization operates, it is necessary to properly change the system of rules according to which political representatives operate. The design of theoretically perfect systems, on the PU organizations or institutional viewpoint, could not be practically implemented, due to its inconsistency with the characteristics of the political system where different actors operate. For instance, a political system where people culture and dominant values are oriented to the search of personnel favor and influence peddling will provide a substantial obstacle towards the implementation of even the best change-oriented programs.

The above remarks suggest the need of a system – rather than a bureaucratic – approach in outlining PA performance improvement programs. A bureaucratic approach, in fact, does not guarantee the satisfaction of citizens' needs (Kernaghan et al., 2000). On the contrary, it is here suggested an “open system” view of the PA. Such a view is opposite to that of the PA, as a self-referential system. This implies a shift of focus, from a formal compliance to norms and other input factors (such as, those related to the execution of tasks), towards a results-oriented approach. This perspective focus on issues such as:

- ensure greater autonomy to public managers in an optic of political devolution to promote *accountability* in the local authorities;
- clear identification of responsibilities and resources assigned to decision makers;
- transition from management by rules to ones by outcomes;
- putting the citizen at the centre as a customer or client of Public services.

In order to effectively achieve the above goals, it has been remarked by the literature (Borgonovi, 1996) the need to provide public managers with a sufficient level of autonomy, to identify (on the basis of their knowledge, skills and experiences, and resources available) alternative ways to better satisfy citizen' needs, in compliance with the current legislation. This also implies the clear definition of autonomy and responsibility of:

1. the political-institutional function;
2. the managerial function;
3. the operational function.

According to such a "post-bureaucratic" perspective (Osborne D., and Gaebler T. 1992; Kernaghan *et al.*, 2000), the *political-institutional function* must be focused on assuring the general conditions to implement public policies (i.e., citizens perception of politicians' reliability and trust, citizens wiliness to pay the current level of taxes for the services received) and sharing with citizens future development plans. Any account of public management that ignores the right rules and downplays such phenomena is a case of Hamlet without the prince of Denmark (Hood, 2004).

CORRUPTION AND STATE CAPTURE: AN INTRODUCTION

Studies on the activities of offenders and capturing the state, take on great significance in an analysis and diagnostic analysis of the PA, as they constitute a kind of magnetic resonance PA's ability to display weakness, symptoms of institutional weakness and democratic thickening, hypertrophy ligament between the different levels of governance and accountability models adopted.

In the sixties and seventies of last century, theories of some political economists have succeeded to capture a real need, irrepressible, even "functional" in the short term is to condone certain manifestations of corruption in developing countries were oiled the wheels of bureaucracy and would allow appropriate decisions, implementations and quick.

However, in the long term, corruption is not only a price to pay for a development that otherwise would not occur. In contrast, many studies are now documenting how corruption is a cost to be borne by the negative development and that spills over the weaker sectors of society. Corruption corrupts not only all the protagonists, but especially in the spheres of economy, society, politics and makes them less susceptible to any development. To give a particular form of development that often tends to underestimate the moral and ethical, the only one capable of promoting, if not a functioning democracy and of acceptable quality, at least not based on coexistence civil extortion and blackmail.

Here comes the first problem, which affects not merely a question of definition: what is really, concretely, the corruption? How to configure it? Somehow, corruption is a trade-off between people who are benefiting at the expense of others, many or few. An exchange of favors that in some societies is often considered inevitable (has always done so), and acceptable, even somewhat positive, if not fundamentally due. Of course, where this trade-off is constitutive of interpersonal traditional "normal", the one that most Westerners would consider a corrupt practice is, in a society usually based on such behavior, merely an expression of its classical rules of operation . The risk of ethnocentrism in the definition of corruption, warn some anthropologists and sociologists, is therefore very high. To escape it seems absolutely necessary to define with great precision what are the cases that deserve to be placed in the category "corruption". According to authoritative doctrine (Borgonovi Fattore, Longo, 2009), the distinction more effectively applicable to the situations of "trade" has been taken by the two

terms improper corruption and extortion. In the first case, the decision makers, political or bureaucratic, which extorts resources, for the most money, in exchange for a decision, due or not due, which would benefit a person, family, group, company or a party to the detriment and to the detriment of all others. In the second case, however, to take the initiative and offer something to decision-makers placed at any level in exchange for a favorable decision is a person, family, group, company or party, and so on. If and when requests and offers, or the circuit of exchange corrupt, must be accompanied by threats and violence remains a moot point.

Indeed, using a cultural-theory perspective (Mars, 1982) it has been show how different people tend to generete different characteristic “fiddles” and different views about where the line is to be drawn between “honest graft” and “unacceptable cheating”. Moreover, for some, the cure to the corruption problem may be deemed worse than the disease.

The corruption and the growth of anti-corruption bureaucracy contribuites heavily to a paralysis of public management while having no significant impact on the corruption rate (Hood, 2004). In many cases, unfortunately, the exchange of favors becomes a perverse sort of *routine institutionalized* where no one (or almost) knows or puts in questions these procedures; is for these reasons that we usually call that *State capture*.

As highlighting Della Porta and Vannucci the spiral systemic corruption is difficult to escape for individuals and for the system as a whole. Indeed, there is sinking like in quicksand. *The more corruption is widespread and practiced, the less the risk of being reported or discovered, and the higher the cost of choosing to stay honest* (Della Porta, Vannucci, 2006). That, of course, the opposite, namely, the lower the systemic corruption so the higher the political cost of using them⁸⁶.

Desesase of balance system

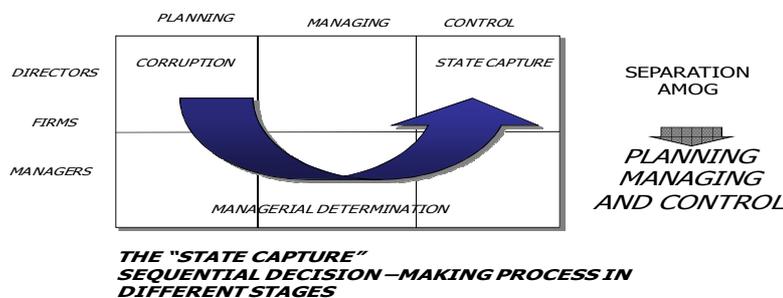


Figure 2 – Desesase of balance system. Reference : P. Esposito

COSTS OF CORRUPTION IN PUBLIC CONTRACTING

Practical experience shows that the costs of corruption and mis-governance are enormous in terms of political stability, as well as on social and economic development. Meanwhile an efficient and transparent governance promotes growth and well-being. In fact, corruption in both public and private sector, seriously harms the society in its socio-economic right. However, government authorities, political leaders, civil society representatives and private sector leaders seldom have the opportunity to meet and join efforts to analyze and deeply discuss the multiple

⁸⁶ Borgonovi E., *La tutela della salute è il fine, il funzionamento delle aziende e dei sistemi è il mezzo*, Egea, Milano, 2008.

dimensions and determinants that cultivate a strong and transparent governance with no corruption.

The governance and anti-corruption program, uses a novel approach, putting together knowledge and practical experience. It takes into account national requirements in the fight against corruption and looks for consensus building processes to design public policies tailored to the country's specificities.

This study uses a cross-country panel to examine the determinants of corruption, paying particular attention to political institutions that increase accountability. Even though the theoretical literature has stressed the importance of political institutions in determining corruption, the empirical literature is relatively scarce. Our results confirm the role of political institutions in determining the prevalence of corruption (Kickert 1995, Meneguzzo 1996). Democracies, parliamentary systems, political stability, and freedom of press are all associated with lower corruption. Additionally, common results of the previous empirical literature, related to openness and legal tradition, do not hold once political variables are taken into account.

Successful anti-corruption programs depend on publicly available information, political leadership, and collective action. By stressing these components and through its integrative logic, this program has been able to respond to client-country demand and to provide innovative, action-oriented, non-lending activities illustrating a new way of doing business in which the client is in the driver's seat (demand-driven).

An avoidable misuse and abuse of public funds results from corruption. Corruption in public contracting leads to a distortion of fair competition, the waste of scarce resources and the neglect of basic needs, perpetuating poverty.

Massive market inefficiencies can also arise from corruption and, in the extreme, lead to the destruction of development opportunities. If corruption in public contracting is not contained, it will grow. It is estimated that systemic corruption can add 20-25% to the costs of government procurement, and frequently results in inferior quality goods and services and unnecessary purchases. It is argued that, on average, approximately 70% of central government expenditure turns in one way or another into contracts. Contracts are sources of power to those who give them out, and targets of ambition for those who may receive them, making public contracts particularly prone to abuse at the expense of public need.

The risk of corruption in public contracting exists even before the contracting process has started, perhaps even at the moment when public budgets are allocated, and it perpetuates beyond the awarding of a contract to its implementation. The cost of corruption is four-fold: political, economic, social, and environmental. On the political front, corruption constitutes a major obstacle to democracy and the rule of law. In a democratic system, offices and institutions lose their legitimacy when they are misused for private advantage. Though this is harmful in the established democracies, it is even more so in newly emerging ones. Accountable political leadership can not develop in a corrupt climate. Economically, corruption leads to the depletion of national wealth. It is often responsible for the funnelling of scarce public resources to uneconomic high-profile projects, such as dams, power plants, pipelines and refineries, at the expense of less spectacular but fundamental infrastructure projects such as schools, hospitals and roads, or the supply of power and water to rural areas. Furthermore, it hinders the development of fair market structures and distorts competition, thereby deterring investment. The effect of corruption on the social fabric of society is the most damaging of all. It undermines people's trust in the political system, in its institutions and its leadership. Frustration and general apathy among a disillusioned public result in a weak civil society. That in turn clears

the way for despots as well as democratically elected yet unscrupulous leaders to turn national assets into personal wealth. Demanding and paying bribes become the norm. Those unwilling to comply often emigrate, leaving the country drained of its most able and most honest citizens.

Environmental degradation is yet another consequence of corrupt systems. The lack of, or non-enforcement of, environmental regulations and legislation has historically allowed the North to export its polluting industry to the South. At the same time, careless exploitation of natural resources, from timber and minerals to elephants, by both domestic and international agents has led to ravaged natural environments. Environmentally devastating projects are given preference in funding, because they are easy targets for siphoning off public money into private pockets. The Global Corruption Barometer is a survey that assesses general public attitudes toward and experience of corruption in dozens of countries around the world.

Transparency International

Transparency International (TI) is a non-governmental, non-profit organization, founded in May 1993 headquartered in Berlin. It proposes to develop a global approach against corruption, with a focus on international business transactions and developing countries, promoting international cooperation, forcing governments to promote and implement effective laws, policies and anti-corruption programmes. The main purpose of TI is to increase the level of transparency, integrity and accountability in economic relations and administration, consolidate public support for anti-corruption, strengthen the rules and procedures to conduct more accurate and transparent in a global system. TI has played and still plays an important role in promoting international anti-corruption agreements, from the negotiation phase until the conversion into law the cartel agreement and its practical application: in particular, TI has actively contributed to the negotiation of the United Nations Convention against Corruption (UNCAC), the OECD Convention against Corruption, the African Union Convention on combating and preventing corruption. Finally, TI has put in place a work of governmental cooperation to reduce the levels of internal corruption (eg, we consider that in Pakistan after the fall of Prime Minister Benazir Bhutto, the national section of IT controls the granting of public procurement). In the ranking of "perceived corruption", prepared annually by Transparency International, which measures the "perceived corruption", Italy went from 44th place in 2007 to 55th place in 2008. The first ten countries in the ranking of "perceived corruption" are: Denmark, New Zealand, Sweden, Singapore, Finland, Switzerland, Iceland, Holland, Australia and Canada (see Table 1).

The Corruption Perception Index (CPI)

The Corruption Perception Index (CPI) is an indicator ordering the countries of the world on the basis of *level according to which the existence of corruption is perceived among public offices and politicians*. The index of perceived corruption in the public sector and defines this unlawful behavior such as *abuse of institutional power for personal ends*. Therefore considers the corruption of public officials, bribes for public office, the misuse of public funds and includes the administrative and political corruption.

The ranking of 180 countries considered this year, 17 more than in 2006. The views are collected and then weighted and translated into an overall score for each country, which can range from a maximum of 10 (high accuracy) to a minimum of 0 (high corruption).

As shown in the table below, 8 countries had a score from 9.4 to 9.0, close to the maximum and 7 from 8.7 to 8.1. 15 are placed in the bottom of the standings with scores ranging from a minimum of 1.4 to 2.0.

Order	Virtuous Countries	Points	Order	Corrupt Countries	Points
1	Denmark	9,4	179	Somalia	1,4
2	Finland	9,4	178	Myanmar	1,4
3	New Zealand	9,4	177	Irak	1,5
4	Singapore	9,3	176	Haiti	1,6
5	Sweden	9,3	175	Uzbekistan	1,7
6	Iceland	9,2	174	Tonga	1,7
7	Netherlands	9,0	173	Sudan	1,8
8	Swiss	9,0	172	Ciad	1,8
9	Canada	8,7	171	Afghanistan	1,8
10	Norway	8,7	170	Laos	1,9
11	Australia	8,6	169	Guinea	1,9
12	Luxembourg	8,4	168	Equatorial Guinea	1,9
13	Unite kingdom	8,4	167	Congo	1,9
14	Hong Kong	8,3	166	Venezuela	2,0
15	Austria	8,1	165	Turkmenistan	2,0

Table 1 - Ranking IPC 2007: The 15 countries most virtuous and the 15 most corrupt⁸⁷

Italy is 42nd, with 5.2 points behind the front of the Czech Republic and Malaysia. Was 45th in 2006. Among the G8, the United Kingdom is 12th with 8.4 points, Germany is 16th with 7.5, Japan is 18th with the same score, France is 19th with 7.3, the U.S. is in 20th place with 7.2, Spain is 25th with 6.7, Russia is 143rd with a 2.3.

In 2003 the survey included 133 countries in 2007. A higher score means less corruption (perceived). The results show that seven in ten (nine out of ten developing countries) have an index of less than 5 points out of 10. The ranking has no real meaning as up or down position may depend on improvements in other countries. What counts for each country is the score achieved. Using sophisticated statistical tools, the CPI is an estimate of great importance for the economic and social sciences.

⁸⁷ www.transparency.org

Ranking of countries by Corruption Perceptions Index

Published by *Transparency International*

Pos. 2007	Country	Index						Pos. 2007	Country	Index					
		2007 ^[1]	2006 ^[2]	2005 ^[3]	2004 ^[4]	2003	2002			2007	2006	2005	2004	2003	2002
1	Denmark	9.4	9.5	9.5	9.5	9.5	9.5	84	Montenegro	3.3					
1	Finland	9.4	9.6	9.6	9.7	9.7	9.9	84	Swaziland	3.3	2.5	2.7			
1	New Zealand	9.4	9.6	9.6	9.5	9.5	9.4	84	Thailandia	3.3	3.6	3.8	3.6	3.3	3.2
4	Singapore	9.3	9.2	9.3	9.4	9.4	9.4	94	Madagascar	3.2	3.1	2.8	3.1	2.6	1.7
4	Sweden	9.3	9.2	9.2	9.3	9.3	9.0	94	Panamá	3.2	3.1	3.5	3.7	3.4	3.0
6	Iceland	9.2	9.6	9.7	9.6	9.4	9.2	94	Sri Lanka	3.2	3.1	3.2	3.5	3.4	3.7
7	Netherlands	9.0	8.7	8.6	8.9	9.0	8.8	94	Tanzania	3.2	2.9	2.9	2.8	2.5	2.7
7	Switzerland	9.0	9.1	9.1	8.8	8.5	8.4	98	Vanuatu	3.1					
9	Canada	8.7	8.5	8.4	8.7	9.0	8.9	99	Algeria	3.0	3.1	2.8	2.7	2.6	
9	Norway	8.7	8.8	8.9	8.8	8.5	8.6	99	Armenia	3.0	2.9	2.9	3.1	3.0	
11	Australia	8.6	8.7	8.8	8.8	8.6	8.5	99	Belize	3.0	3.5	3.7	3.8	4.5	
12	Luxembourg	8.4	8.6	8.5	8.7	9.0	8.7	99	Dominican Republic	3.0	2.8	3.0	2.9	3.3	3.5
12	United Kingdom	8.4	8.6	8.6	8.6	8.7	8.3	99	Libano	3.0	3.6	3.1	2.7	3.0	
14	Hong Kong	8.3	8.3	8.3	8.0	8.2	7.9	99	Mongolia	3.0	2.8	3.0	3.0		
15	Austria	8.1	8.6	8.7	8.0	7.8	7.8	105	Albania	2.9	2.6	2.4	2.5	2.5	2.5
16	Germany	7.8	8.0	8.2	7.7	7.3	7.4	105	Argentina	2.9	2.9	2.8	2.5	2.5	2.8
17	Iceland	7.5	7.4	7.4	7.5	6.9	7.5	105	Bolivia	2.9	2.7	2.5	2.2	2.3	2.2
17	Japan	7.5	7.6	7.3	7.0	7.1	7.1	105	Burkina Faso	2.9	3.2	3.4			
19	France	7.3	7.4	7.5	6.9	6.3	6.7	105	Gibuti	2.9					
20	Unite State	7.2	7.3	7.6	7.5	7.7	7.6	105	Egypt	2.9	3.3	3.4	3.2	3.3	3.4
21	Belgium	7.1	7.3	7.4	7.6	7.1	6.6	111	Eritrea	2.8	2.9	2.6	2.6		
22	Chile	7.0	7.3	7.3	7.4	7.5	7.5	111	Guatemala	2.8	2.6	2.5	2.2	2.4	2.5
23	Barbados	6.9	6.7	6.9				111	Moldavia	2.8	3.2	2.9	2.3	2.4	2.1
24	Saint Lucia	6.8						111	Mozambico	2.8	2.8	2.8	2.8	2.7	
25	Spain	6.7	6.8	7.0	6.9	7.1	7.0	111	Ruanda	2.8	2.5	3.1			
25	Uruguay	6.7	6.4	5.9	5.5	5.1	5.1	111	Solomon Island	2.8					
27	Slovenia	6.6	6.4	6.1	5.9	6.0	5.2	111	Uganda	2.8	2.7	2.5	2.6	2.2	2.1
28	Estonia	6.5	6.7	6.4	5.5	5.6	5.6	118	Benin	2.7	2.5	2.9	3.2		
28	Portugal	6.5	6.6	6.5	6.6	6.3	6.3	118	Malawi	2.7	2.7	2.8	2.8	2.8	2.9
								118	Mali	2.7	2.8	2.9	3.2	3.0	
								118	São Tomé e Príncipe	2.7					

30	 Israel	6.1	5.9	6.3	6.4	7.0	7.3							
30	 Saint Vincent and Grenadine	6.1												
32	 Qatar	6.0	6.0	5.9	5.6									
33	 Malta	5.8	6.4	6.4										
34	 Macao	5.7	6.6											
34	 Taiwan	5.7	5.9	5.9	5.6	5.7	5.6							
34	 United Arab Emirates	5.7	6.2	6.2	6.1	5.2								
37	 Dominica	5.6	4.5	3.0	2.9	3.3	3.2							
38	 Botswana	5.4	5.6	5.9	6.0	5.7	6.4							
39	 Cipro	5.3	5.6	5.7	5.4	6.1								
39	 Hungary	5.3	5.2	5.0	4.8	4.8	4.9							
41	 Czech Republic	5.2	4.8	4.3	4.2	3.9	3.7							
41	 Italy	5.2	6.2	6.2	5.2									
43	 Malaysia	5.1	5.0	2.8	2.8	2.8	4.9							
43	 South Africa	5.1	4.6	4.5	4.6	4.4	4.8							
43	 South Korea	5.1	5.1	5.0	4.5	4.3	4.5							
46	 Bahrain	5.0	5.7	5.8	5.8	6.1								
46	 Bhutan	5.0												
46	 Costa Rica	5.0	4.1	4.2	4.9	4.3	4.5							
49	 Capo Verde	4.9												
49	 Slovakia	4.9	6.4	6.1	4.0	3.7	3.7							
51	 Latvia	4.8	4.7	4.2	4.0	3.8	3.7							
51	 Lithuania	4.8	4.8	4.8	4.6	4.7	4.8							
51	 Jordan	4.7	5.3	5.7	5.3	4.6	4.5							
53	 Mauritius	4.7	5.1	4.2	4.1	4.4	4.5							
53	 Oman	4.7	5.4	6.3	6.1	6.3								
56	 Greece	4.6	4.4	4.3	4.3	4.3	4.2							
57	 Namibia	4.5	4.1	4.3	4.1	4.7	5.7							
57	 Samoa	4.5												
57	 Seychelles	4.5	3.6	4.0	4.4									
60	 Kuwait	4.3	4.8	4.7	4.6	5.3								
60	 Cuba	4.2	3.5	3.8	3.7	4.6								
61	 Poland	4.2	3.7	3.4	3.5	3.6	4.0							
61	 Tunisia	4.2	4.6	4.9	5.0	4.9	4.8							
64	 Bulgaria	4.1	4.0	4.0	4.1	3.9	4.0							
64	 Croatia	4.1	3.4	3.4	3.5	3.7	3.8							
118	 Ukraine	2.7	2.8	2.6	2.2	2.3	2.4							
123	 Comore	2.6												
123	 Guyana	2.6	2.5	2.5										
123	 Mauritania	2.6	3.1											
123	 Nicaragua	2.6	2.6	2.6	2.7	2.6	2.5							
123	 Niger	2.6	2.3	2.4	2.2									
123	 Timor Est	2.6	2.6											
123	 Vietnam	2.6	2.6	2.6	2.6	2.4	2.4							
123	 Zambia	2.6	2.6	2.6	2.6	2.5	2.6							
131	 Burundi	2.5	2.4	2.3										
131	 Honduras	2.5	2.5	2.6	2.3	2.3	2.7							
131	 Iran	2.5	2.7	2.9	2.9	3.0								
131	 Libia	2.5	2.7	2.5	2.5	2.1								
131	 Nepal	2.5	2.5	2.5	2.8									
131	 Filippine	2.5	2.5	2.5	2.6	2.5	2.6							
131	 Yemen	2.5	2.6	2.7	2.4	2.6	2.4							
138	 Camerun	2.4	2.3	2.2	2.1	1.8	2.2							
138	 Etiopia	2.4	2.4	2.2	2.3	2.5	3.5							
138	 Pakistan	2.4	2.2	2.1	2.1	2.5	2.6							
138	 Paraguay	2.4	2.6	2.1	1.9	1.6	1.7							
138	 Siria	2.4	2.9	3.4	3.4	3.4								
143	 Gambia	2.3	2.5	2.7	2.8	2.5								
143	 Indonesia	2.3	2.4	2.2	2.0	1.9	1.9							
143	 Russia	2.3	2.5	2.4	2.8	2.7	2.7							
143	 Togo	2.3	2.4											
147	 Angola	2.2	2.2	2.0	2.0	1.8	1.7							
147	 Guinea-Bissau	2.2												
147	 Nigeria	2.2	2.2	1.9	1.6	1.4	1.6							
150	 Azerbaijan	2.1	2.4	2.2	1.9	1.8	2.0							
150	 Bielorussia	2.1	2.1	2.6	3.3	4.2	4.8							
150	 Congo	2.1	2.2	2.3	2.3	2.2								
150	 Ivory Coast	2.1		1.9	2.0	2.1	2.7							
150	 Ecuador	2.1	2.3	2.5	2.4	2.2	2.2							
150	 Kazakistan	2.1	2.6	2.6	2.2	2.4	2.3							
150	 Kenya	2.1	2.2	2.1	2.1	1.9	1.9							
150	 Kirghizistan	2.1	2.2	2.3	2.2	2.1								
150	 Liberia	2.1		2.2										
150	 Sierra Leone	2.1	2.2	2.4	2.3	2.2								

64	 Turkey	4.1	3.8	3.5	3.2	3.1	3.2							
67	 El Salvador	4.0	4.0	4.2	3.7	3.4	3.2							
68	 Colombia	3.8	3.9	4.0	3.8	3.7	3.6							
69	 Ghana	3.7	3.3	3.5	3.6	3.3	3.9							
69	 Romania	3.7	3.1	3.0	2.9	2.8	2.6							
71	 Senegal	3.6	3.3	3.2	3.0	3.2	3.1							
72	 Brazil	3.5	3.3	3.7	3.9	3.9	4.0							
72	 China	3.5	3.3	3.2	3.4	3.4	3.5							
72	 India	3.5	3.3	2.9	2.8	2.8	2.7							
72	 Mexico	3.5	3.3	3.5	3.6	3.6	3.6							
72	 Marocco	3.5	3.2	3.2	3.2	3.3	3.7							
72	 Perù	3.5	3.3	3.5	3.5	3.7	3.4							
72	 Suriname	3.5	3.0	3.2	4.3									
79	 Georgia	3.4	2.8	2.3	2.0	1.8	2.4							
79	 Grenada	3.4	3.5											
79	 Arabia Saudita	3.4	3.3	3.4	3.4	4.5								
79	 Serbia	3.4	3.0	2.8	2.7	2.3								
79	 Trinidad e Tobago	3.4	3.2	3.8	4.2	4.6	4.9							
84	 Bosnia-Erzegovina	3.3	2.9	2.9	3.1	3.3								
84	 Gabon	3.3	3.0	2.9	3.3									
84	 Jamaica	3.3	3.7	3.6	3.3	3.8	4.0							
84	 Kiribati	3.3	3.7											
84	 Lesotho	3.3	3.2	3.4										
84	 Macedonia	3.3	2.7	2.7	2.7	2.3								
84	 Maldive	3.3												
150	 Tagikistan	2.1	2.2	2.1	2.0	1.8								
150	 Zimbabwe	2.1	2.4	2.6	2.3	2.3	2.7							
162	 Bangladesh	2.0	2.0	1.7	1.5	1.3	1.2							
162	 Cambogia	2.0	2.1	2.3	1.5	1.3	1.2							
162	 Central African Republic	2.0	2.4											
162	 Papua New Guinea	2.0	2.4	2.3	2.6	2.1								
162	 Turkmenistan	2.0	2.2	1.8	2.0									
162	 Venezuela	2.0	2.3	2.3	2.3	2.4	2.5							
168	 Congo	1.9	2.0	2.1	2.0									
168	 Equatorial Guinea	1.9	2.1	1.9										
168	 Guinea	1.9	1.9											
168	 Laos	1.9	2.6	3.3										
172	 Afghanistan	1.8		2.5										
172	 Ciad	1.8	2.0	1.7	1.7									
172	 Sudan	1.8	2.0	2.1	2.2	2.3								
175	 Tonga	1.7												
175	 Uzbekistan	1.7	2.7	2.2	2.3	2.4	2.9							
177	 Haiti	1.6	1.8	1.8	1.5	1.5	2.2							
178	 Iraq	1.5	1.9	2.2	2.1	2.2								
179	 Birmaniam	1.4	1.9	1.8	1.7	1.6								
179	 Somalia	1.4		2.1										

Table 2 – Ranking CPI (2002 – 2007) in the Word⁸⁸

The data for the aforementioned report, are a clear sign of market failure and state reform and modernization of that failure of the PA Italian place with strong regulatory action of our legislators, who need instead of a more bottom-up development, governance at local.

THE THEORY OF SOCIETY'S PARTICIPATION IN STRENGTHENING GOVERNMENT ACCOUNTABILITY

An emphasis on accountability in government is one aspect of the growing emphasis on eliminating corruption and promoting transparency in government (Kaufman 2005). According to some authoritative doctrine (Ricci, 2005) the term accountability, widely used in recent years, is the firm ability to permit stakeholders to assess firms performances, in order to adequately

⁸⁸ www.transparency.org

empower business decision makers. Accountability evokes a set of ideas closely related to each other (Molteni, 2000):

- Autonomy and freedom of government and company management operating in a market economy;
- Firm responsibility towards their stakeholders;
- Firm responsibility and accountability towards results achieved.

Transparency and openness are necessary, but perhaps not sufficient, to produce accountability in the public sector. If the public sector can maintain secrecy about its actions, there is little chance that political officials or the public will be able to impose effective control over government. Accountability is a fundamental value for any political system. Citizens should have the right to know what actions have been taken in their name, and they should have the means to force corrective actions when government acts in an illegal, immoral, or unjust manner. Individual citizens should have the ability to have some redress when their rights are abused by government or they do not receive the public benefits to which they are entitled. Accountability is also important for government itself.

It provides government with a means of understanding how programs may fail and finding mechanisms that can make programs perform better. Therefore, accountability and transparency are essential to a democratic form of government. As matter of fact, if public sector can maintain secrecy about its actions, there is little chance that political officials or the public will be able to impose effective control over government.

Throughout the developing world, citizens are demanding greater government accountability and responsiveness as well as better delivery of public services. Economic inequalities accentuated by globalization, lagging public sector reform efforts, entrenched corruption, and persistent concerns about the overall legitimacy of government decision making at all levels have fueled such demands, creating a deeper sense of urgency about budgeting and service delivery shortcomings.

The analysis of all aspects linked with globalization brings an obvious statement (of fact) concerning the complexity of the outside environment and its repercussion also on Public Administration strategies and management. Therefore a "complex planning" is needed to go beyond these criticalities. This complexity, then, needs to go beyond the traditional terms of the organisation operative ways that have just faced the problems sequentially in turn until now. Generally speaking, as it was predicted by outstanding scholars (H. Mintzberg, P. Drucker, J. Galbraith among others), the organizational machine is becoming less and less "machine" and more and more "organizational system".

The best way to tap into the energy of society is through "co-governance," which involves inviting social actors to participate in the core activities of the state. During the past two decades, two prominent influences – globalization and the information revolution – have brought about profound changes in the division of powers within nations as well as beyond nation-states. As a result, the world has gradually but steadily moved from closed-economy centralized governance to open-economy globalized and localized governance – sometimes called "glocalized" governance. International security concerns in recent years have somewhat dampened this change process. Nevertheless, these rearrangements have had profound implications for the roles of and relations among various orders of government. They also have implications for democratic choice and citizen voice and exit.

A government, therefore, needs to exercise caution in designing a system of accountability and control in order to take into account all the contingencies that may arise from its choice. The simplest form of accountability is the requirement for an administrative organization to render an account of what it has done, as a mean of assessing just what government has produced for its citizens. Are the programs adopted by government actually delivering goods and services, or are there major failures in delivery? If there are failures, what is the cause and how can it be corrected? These questions may identify malfeasance and corruption. In this case, punishments may be deserved.

The report should be made to some external, independent organization—a legislature, an auditor, even the public at large—through a published report, so that the assessment can be reasonably public and objective. The accounting may be financial, or it may be expressed in terms of the services provided and the successes and failures of the program. In either case it involves making public what has been done in the public name. This form of accountability highlights the notion that at the most basic level, accountability is about transparency, about making it possible for actors outside a public organization to identify, and question, what has happened. The conditions in which assessments are produced depend on the quality of the firm's accountability system. Factors which contribute to determine the degree of accountability in a company are⁸⁹:

1. a clear and thorough programming process;
2. a clear definition of internal and external duties;
3. a suitable accounting system;
4. an effective internal system for control and evaluation;
5. a periodic informative activity about company management;
6. the use of benchmarking procedures;
7. the use of up-to-date technology in the communication process.

Thinking of an extended accountability system it includes all tools and documents that provides information and comments about company performance in different ways and with a different degree of insight and detail (Terzani, 2002), such as balance sheet, period analysis, periodic reports, budgets over one or more years, financial and economic programmes, strategic and executive plans social balance.

Moreover, accountability has been conceptualized in terms of responsibility – ensuring that the behavior of officials corresponds to (is responsible to) the law or a code of ethics in office (Bovens 1999). While the conceptualization of accountability described above emphasizes the role of external actors in enforcing accountability, the concept of responsibility relies more on the internalized values of public servants and their understanding of the law and appropriate behavior in office. Such a standard of personal responsibility may be acceptable and enforceable in countries with well-institutionalized public service systems; it may be risky to rely on such an approach when there is less agreement on standards of behavior. On the other hand, in terms of responsiveness, accountability system is closely related to the willingness of civil servants to respond to demands from their political masters and perhaps from clients and the public at large. The idea of responsiveness is that the good civil servant is one who is willing to take direction from above, to attempt to serve the public, and, insofar as possible, to provide the

⁸⁹ Ricci P. *Enti strumentali regionali e loro accountability. Il caso caso Campania*, Franco Angeli, Milano, 2005, p.

public with what it wants. This conception points to the numerous pressures that impinge on the behavior of the public servant and the attendant difficulties he or she may face in determining an appropriate course of behavior.

Synthetically we see that the Public Administration is more and more repeatedly expected to follow socially qualified aims and to contribute to society's sustainable development. The social function can be considered as the presumption bringing to life the public sector itself and, at the same time, as the quality assuring its survival. Seeing that the legitimation of existence comes from the ability to satisfy citizens needs and that the legitimation of persistence as vital structure is linked to the requirement of performances carried out, it's correct let be the future of every kind of Public Administration based on efficiency, integrity and capacity criteria.

A consensus among development specialists favors the creation of more effective and participatory policy-making mechanisms to exert greater control over service delivery design and operation, but implementing such mechanisms has proven difficult. Stronger citizen "voice" – demand-side pressures for reform – should result in better incentives for public officials to budget and deliver services of the type and amount desired by the public.

Appropriate legal and institutional frameworks can create significant participatory "spaces" and opportunities often grounded in individual and collective rights – for the public to exert such agency and make meaningful choices about service delivery quality, access, accountability, efficiency, and equity. A wide range of contextual factors, however, complicates straightforward emphasis on these formal interactive organizational arrangements – factors that include background politics and power relations, socio-cultural norms, and government and civil society organization (CSO) capacity.

Reformers need to both incorporate the influence of such factors into legal and institutional designs and acknowledge important limitations – at least in the short run – in the ability to mitigate many of these conditions.

The public function is naturally depositary of the public trust, which is indispensable for improving the quality of life, the civil life, the social cohesion, the mutual respect, the economy of decisions making. The cost of the lack of trust in Institutions is a huge cost for the whole society both from a moral and economic perspective. Negligence, delays, non executions, as well as unfair behaviours, corruption, nepotism are claimed by citizens sound reactions by Institutions, which sometimes seems to tolerate privileges and illegal conditions.

Three issues seem of critical relevance in the years to come, particularly in view of the challenges posed by the achievement of the Millennium Development Goals (MDG) and by recent events of great impact. These include: (1) Improving Economic and Social Decision Making Institutions and Processes; (2) Strengthening Integrity, Transparency and Accountability; (3) Reconciling Security Requirements with Demands for Social Service Delivery.

Integrity, transparency and accountability in government are also critical in ensuring that the principles contained in the MDGs are translated into daily action, i.e. in ensuring that government officials act in open, transparent, and accountable ways in managing scarce resources and that they take decisions in the public interest. The second major challenge for public administration is therefore that of building and strengthening management and accountability systems, promoting integrity in the public sector, fighting corrupt practices; developing transparent and fair public procurement systems; introducing financial and management control and evaluation mechanisms, maximizing the utilization of ICT, for efficiency and transparency.

By addressing these challenges, countries will not only facilitate the flow of additional resources for development, but will also ensure that these resources be used efficiently, effectively and thus maximize their impact on the development process.

CONCLUSION

One of the central tasks for an adequate theory of PA is to give an account of collapse and failure. Each type of failure discussed above (corruption and bribery) represents a recognizable and frequently encountered family of shortcomings, regularly appears in different guises and contexts and serves to trigger-off ideas about how to organize to correct or avoid such failings. The sort of organization that remains passive, sunk in inappropriate routines, and unable to plan or take initiative even in the face of palpable disaster is not likely to be the same sort of organization that makes large-scale of corrective policies taking into account the whole range of citizen's interests. Corruption, in which individual interests are placed before anything else, as widely argued above, can often contribute dramatically to disaster. An unrecognized clash of opposing interests or mixture of different interests biases seems to be one of the major triggers for several well-known mechanisms which produce reverse effects in policy and organization.

Despite the advent of the NPM, the new rules and laws have not yet started the desired effect, as the downsizing public sector, increasing transparency about the actions taken by public managers, the limitations of behavior that isn't consistent with the general aims of the reference community. The old bureaucratic model of PA, was based on the *ex-ante* compliance rules, but the growth of complexity and relative abundance of public functions and services has created market failures and, in particular, the emergence of opportunistic behaviors and corrupt practices. Corruption, if continued over time, can weaken the whole system, so is fair to add to a simple *ex-ante* control an alongside *ex-post* evaluation of results achievements. At the same time, increase the stringency of controls, increase the powers of administrative authorities, could lead to increase complexity and to create longer and less clear decision-making processes. According to our hypothesis it's necessary to take some important and timely interventions explained below.

- a) Implement a social control and not just a bureaucratic control. That means to create some tools of communication (social balance, budget office, report) to grant citizens participation to political choices in the planning, managing and control phases.
- b) Implement new models of accountability, dependability and governance because the damage connected to phenomena of irregularity and corruption leads to serious negative consequences (Court of Auditors, 2009):
 - Economic, when resources diverted to other purposes and unlawful failure to achieve the objective of determining the development or support the economy;
 - Public safety, as these resources end up financing criminals circuits
 - Social, since these phenomena undermine the credibility of national and international public institutions.
- c) Redefine the models of spoils system to ensure independence and accountability in the selection and appoint public managers.
- d) Review the pattern of recruitment and evaluation of public employees and directors to provide award fees or penalties commensurate with the results achieved or not achieved.

- e) Create inter-institutional task force to support collaboration and transfer of data (databases). It's necessary to allow citizens and all other stakeholders to assess the actions taken from planning to implementation of strategies.
- f) Create anti-corruption networks between Institutions and specific Authority ("watch dog").

Obviously no one of these levers alone is able to resolve the problem of corruption, particularly when deposited on a long time and widespread and socially accepted. It must take coordinated measures to involve and raise awareness among citizens and authorities to a widespread public culture and highlight benefits and collective well-being that a less corrupt society may generate, increasing confidence and transparency toward its citizens.

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THE EFFECT OF INVESTING IN HIRING, HUMAN RESOURCE PLANNING, AND EMPLOYEE DEVELOPMENT ON LABOR PRODUCTIVITY: CASE OF LEBANON

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This paper examines the factors that contribute towards enhancing Labor productivity. Three main areas are studied, namely investing in human resources hiring, human resource planning, and employee development. Responses were received from 527 human resource managers or small businesses managers. Results showed that there is a positive relationship between formal HR planning, formal evaluation of hiring policies, succession plans and labor productivity. However, results showed a negative relationship between formal planning, career path and labor productivity. On the other hand, there seems to be a negative relationship between skills selection test and aptitude selection test with labor productivity. Moreover, the number of candidates interviewed in a hiring process, is the most significant variable, whereas search firms are the least significant. The study found a positive relationship between promotion from within and labor productivity. On the other hand, there seems to be a negative relationship between training of employees and labor productivity. Moreover, the only significant result among the above three variables is promotion from within.

After testing for each variable alone, testing for the overall significance proved that there is a positive relationship between some of the independent variables in the model with labor productivity.

Keywords: Labor Productivity, Human Resources, Hiring, Planning, Employee Development, Capital Intensity, Lebanon

INTRODUCTION

The organizational factor that is most likely to provide potential competitive advantage is human resources and how these resources are managed. The most effective organizations find unique ways to attract retain and motivate employees, a strategy that is hard to imitate. The success of an organization comes from managing people effectively and providing them with a safe working environment, the best opportunities and paths to advance. Human resource management is the utilization of individuals to achieve organizational objectives. Consequently, managers at every level must concern themselves with the human resource management. Five functional areas are associated with effective human resource management: Staffing, human resource development, compensation and benefits, safety and health, and employee and labor relations.

Staffing is the process through which an organization insures that it always has the proper number of employees with appropriate skills in the right jobs at the right time to achieve the organization's objectives. Staffing involves job analysis, human resource planning, recruitment and selection. All areas of staffing would be haphazard if the recruiter did not know the qualifications needed to perform the various jobs. Lacking up-to-date job descriptions and specifications, a firm would have to recruit and select employees for jobs without having clear guidelines; this practice could have disastrous consequences. Job analysis is conducted after the job has been designed, the worker has been trained and the job is being performed. Human resource planning involves matching the internal and external supply of people with job openings anticipated in the organization over a specified period of time. Because conditions in the external and internal environments can change quickly, the human resource planning

process must be continuous. Changing conditions could affect the entire organization, thereby requiring extensive modification of forecasts. Planning, in general, enables managers to anticipate and prepare for changing conditions and human resource planning, in particular allows flexibility in the area of human resource management. Human Resource development is a major human resource management function that consists not only of training and development but also of individual career planning and development activities, organization development, and performance appraisal, an activity that emphasizes training and development needs. Training is designed to provide learners with the knowledge and skills needed for their present jobs. Development involves learning that goes beyond today's job; it has a more long term focus. Career planning is an ongoing process whereby an individual sets career goals and identifies the means to achieve them. This is a continuing and difficult process because the average person graduating from college today may face five to seven career changes in his working years. Career development: is a formal approach used by the organization to ensure that people with the proper qualifications and experiences are available when needed. Individual careers and organizational needs are not separate and distinct. Organizations should assist employees in career planning so the needs of both can be satisfied. Organization development is the planned process of improving an organization by developing its structures systems and processes to improve effectiveness and achieving desired goals. Organizational development applies to an entire system such as a company or plant. Performance appraisal is a formal system or review and an evaluation of individual or team task performance. It affords employees the opportunity to capitalize on their strengths and overcome identified deficiencies, thereby helping them to become more satisfied and productive employees. Job specification information often proves beneficial in identifying training & development needs. If the specification suggests that the job requires a particular knowledge, skill or ability and the person filling the position does not possess all the qualifications required, training and development are probably in order. They should be directed at assisting workers in performing duties specified in their present job descriptions or preparing them for broader responsibilities. With regard to performance appraisal, employees should be evaluated in terms of how well they accomplish the duties specified in their job descriptions and any specific goals that may have been established. A manager who evaluated an employee on factors not clearly predetermined is left wide open to allegations of discrimination.

The question of what constitutes a fair days pay has plagued management, unions, and workers for a long time. A well-thought-out compensation system provides employees with adequate and equitable rewards for their contributions to meeting organizational goals. In the area of compensation, it is helpful to know the relative value of a particular job to the company before a dollar value is placed on it. From an internal perspective, the more significant its duties and responsibilities, the more the job is worth. Jobs that require greater knowledge, skills, and abilities should be worth more to the firm. For example, the relative value of a job calling for a master's degree normally would be higher than that of a job that requires a high school diploma.

Safety involves protecting employees from injuries caused by work-related accidents. Health refers to the employee's freedom from physical or emotional illness. These aspects of the job are important because employees who work in a safe environment and enjoy good health are more likely to be productive and yield long-term benefits to the organization. Information derived from job analysis is also valuable in identifying safety and health considerations. For example, employers are required to state whether a job is hazardous. The job description should reflect this condition. In addition, in certain hazardous jobs, workers may need specific information about the hazards in order to perform the jobs safely.

A business firm is required by law to recognize a union and bargain with it in a good faith if the firm's employees want the union to represent them. In the past, this relationship was an accepted way of life for many employers. But most firms today would like to have a union-free environment. When a labor union represents firm's employees, the human resource activity is often referred to as industrial relations which handle the job of collective bargaining.

Job analysis information is also important in employee and labor relations. When employees are considered for promotion, transfer, or demotion, the job description provides a standard for evaluation and comparison of talent. Regardless of whether the firm is unionized, information obtained through job analysis can often lead to more objectives human resource decisions.

LITERATURE REVIEW

This paper tackles the way in which human resources function in organizational setting, and the effect of human resource functions on labor productivity. It is important to note that the study of the impact of human resource management on organizational performance contributed to a better understanding of human resource decisions in creating and sustaining organizational performance and a competitive advantage in order to demonstrate to senior managers that their human resource systems represent a largely untapped opportunity to improve firm performance. (Becker, Gerhart, 1996). The study was built upon a review of the cumulative literature of acute point estimates of the HR- firm performance. In studying the literature on this subject, it was noticed that HR decisions influence organizational performance in a way that they must either improve efficiency or contribute to revenue growth. However, the new interest in HR as a strategic lever that can have economically significant effects on a firm's bottom line aimed to shift the focus more toward value creation, which suggests that HR contributes directly to the implementation of firms' objectives. Still, the mechanisms by which HR decisions create and sustain value are not understood and complicated. In this respect, most studies suggest that an HR system can be a unique source of sustained competitive advantage especially when its components have high internal and external fit. These papers look directly at the impact of HR decisions on performance outcomes that have clear meaning and relevance to managers such as stock performance, productivity, profits, quality, and organizational survival. Finally, emphasis was placed on the fact that HR strategies that are deeply embedded in an organization are hard to imitate due to casual ambiguity and/or path dependency, policies are developed over time.

The study suggests that further work must be done regarding the relationship between a firm's HR system and the bottom line, since none of the studies thus far used business-unit-level outcomes indicating the difficulty of measuring performance at this level. It was also noted that a major disconnect exists between the literature review suggestions on what firms must do and what firms actually do. This can be explained by the fact that there should be a better communication between the academic and management communities so that research findings can have a greater influence on actual policy. Hence, since the choice of HR systems can have an economically significant effect on firm performance, HR managers must not ignore the importance of the strategic role of the HR function so that the function won't be left with traditional transaction and compliance activities and be forced to justify itself on a cost basis rather than being assessed based on value creation measurements, as the study concludes. Another study examined the role of strategic reference points in explaining the nature and consequences of human resource strategy (Bamberger, Fiegenbaum, 1996). This study examined how managers use strategic reference points or benchmarks to guide their strategic decision making with regard to human resource issues and how these benchmarks can affect the performance-based consequences of such decisions. The study developed propositions

regarding the likely configuration of such reference points and their impact on the nature of HR policies and practices, to explain how the management of strategic reference points fit and consensus can reduce the likelihood that HR policies and practices will have a negative effect on a firm's performance, and the implications of this issue organization wide. In this article, the theoretical underpinnings of benchmarking are explored by examining strategic reference points at both the organizational and sub organizational or system levels. Strategic reference points are the targets or benchmarks that managers use to evaluate choices, to make strategic decisions, and to signal to other key personnel their system wide or organizational priorities. The goal in this article is to show how the strategic reference point construct might allow researchers to integrate each of these elements into a comprehensive theory explaining managerial behavior and decision making in the development of HR systems and to use strategic reference point theory to enhance researchers' understanding of the occasionally contradictory findings regarding the link between HR policies and practices and a firm's performance. The paper begins by presenting a brief review of strategic reference points theory. Then, applying the concept at the system level, it discusses the nature and determination of the reference points relevant to the HR system, and it examines how the configuration of strategic reference points may influence HR managers' decisions to select more daring HR policies and practices over more conservative strategies, to finally describe how the management of strategic reference points fit and consensus can affect the likelihood that such strategies will have a negative effect on firm performance. The study found that in the context of strategic reference points theory, benchmarking in the HR system may be seen as much more than a new managerial tool. From an strategic reference point perspective, benchmarking is not so much an innovative managerial practice as it is a cognitive process underlying much of what researchers know about managerial strategic decision making, thus, managers are likely to adopt policies and practices that may be more daring or less daring in nature based on these benchmarks results; these policies and practices may, in turn, have a direct effect on a firm's overall performance. Under conditions of limited strategic reference points fit and consensus, the potential for the HR system to have a negative effect on a firm's performance may be heightened. Thus, by showing how managers establish system-level policies and practices on the basis of comparisons with internally, externally, and temporally based targets, the model provides a much needed link between strategy and policy at the firm level and implementation and practice at the system or sub organizational level. The study concludes that the HR strategic reference point model provides an additional means by which to move away from the more traditional, rational-economic foundations of HR management and toward a body of theory more solidly grounded on notions of cognition and micro-politics, and that a movement in this direction may help reduce the gap between HR theory and managerial practice. This article also reinforces recent efforts to move HR strategy research away from its prescriptive roots and toward description and analysis. Other studies showed the effect of human resource management systems on economic performance and compared US and Japanese plants (Ichniowski, Shaw, 1999). The study elaborated on the effects of Japanese and U.S. human resource management practices on worker productivity, using personally collected data from 41 steel production lines, to develop models of the productivity of these lines; each line was toured by the experimenters with either an experienced engineer, area operations manager or superintendent. The study found that Japanese production lines employ a common system of HRM practices including: problem-solving teams, extensive orientation, training throughout employees' careers, extensive information sharing, rotation across jobs, employment security, and profit sharing. On the other hand, a majority of U.S. plants now have one or two features of this system of HRM practices, but only a minority has a comprehensive system of innovative work practices that parallels the full system of practices found among the Japanese

manufacturers. In fact, the results revealed that the Japanese lines are significantly more productive than the U.S. lines. However, U.S. manufacturers that have adopted a full system of innovative HRM practices patterned after the Japanese system, achieve levels of productivity and quality equal to the performance of the Japanese manufacturers. This study's evidence helps reconcile conflicting views about the effectiveness of adopting Japanese-style worker involvement schemes in the United States. United States manufacturers that have adopted a definition of employee participation that extends only to problem-solving teams or information sharing do not see large improvements in productivity. However, U.S. manufacturers that adopt a broader definition of participation that mimics the full Japanese HRM system see substantial performance gains. Other studies examined two alternative views, universal and contingency views, of the human resources-performance relationship in manufacturing settings (Youndt, Snell, Dean, 1996). According to the contingency approach to strategic human resource management, if a firm's approach to competition depends on the talents or capabilities of employees, then HR practices would affect performance or else the connection between HR and performance would be minimal. On the other hand, the universal approach to strategic human resource management stated that human resource activities should have a high degree of internal consistency, such as having training and selection activities correlated with both productivity and firm performance. However, there are notable differences across the studies, as to what constitutes a "best practice". The study was based on data collected from a survey of 97 plants, the information was processed using regression analysis, studying the relationship between HR systems, manufacturing strategy, and multiple dimensions of operational performance such as customer alignment, machine efficiency and employee productivity. The analysis of results showed that the apparent main effect of human-capital-enhancing human resources on performance is a function of the performance obtained when firms link of human-capital-enhancing human resource systems with a quality manufacturing strategy as well as other manufacturing strategies that altogether moderated the HR-performance relationship.

However, the study could not conclude that there are strong universal or "best practice" approaches to human resource management. Instead, results were more supportive of a contingency approach to human resource management. Further research examined the impact of workplace practices, information technology, and human capital investments on productivity, to get a better understanding of the effects of those variables on productivity (Black, Lynch, 2001). Using data from a unique nationally representative sample of businesses, they estimated an augmented Cobb-Douglas production function with both cross section and panel data covering the period of 1987-1993, using both within and GMM estimators. The study was able to examine these factors on a broader cross section of employees, unlike previous studies that have focused on one particular industry, product, or even firm. The study found that it is not whether an employer adopts a particular work practice or a TQM system per se that raises productivity, but rather how that work practice is actually implemented within the establishment that is associated with higher productivity. Results showed that unionized establishments that have adopted human resource practices that promote joint decision making coupled with incentive-based compensation have higher productivity than other similar nonunion plants, whereas unionized businesses that maintain more traditional labor management relations have lower productivity. Thus, allowing greater employee voice in decision making raises labor productivity. The results also showed that plant productivity is higher in businesses with more-educated workers or greater computer usage by non managerial employees and that having a profit sharing system also has a positive effect on productivity.

SAMPLING AND METHODOLOGY

The sample

The sample consisted of 527 questionnaires which were circulated to different organizations in Lebanon across various regions, mainly to human resource managers or managers of small-sized firms that do not have a human resource department.

The questionnaire aimed at obtaining data related to year of establishment, legal form of the company, industry type, whether the business is a family business or not, job title of the person filling out the questionnaire, net sales, number of employees, employee productivity relative to competition, formal planning of the number and skills of employees, formal evaluation of hiring policies, existence of succession plans and career paths, number of candidates interviewed per position, sources of employment, selection tests used in recruitment, whether training programs exist and the number of trainings per year, whether the company invests in R&D, and the amount of the R&D expense, and the amount of total assets in the company.

Out of the 527 data sampled 280 (53 %) were family businesses, whereas 47 % were non-family businesses. Moreover, the legal forms of the companies are distributed as follows:

<i>Legal Form</i>	<i>Number of Companies</i>	<i>% out of Total</i>
<i>Family Limited Partnership</i>	35	6.64%
<i>Holding</i>	8	1.52%
<i>No Answer</i>	1	0.19%
<i>Off-shore Company</i>	7	1.33%
<i>Other</i>	26	4.93%
<i>Partnership</i>	25	4.74%
<i>S.A.L.</i>	149	28.27%
<i>S.A.R.L.</i>	174	33.02%
<i>Sole Proprietorship</i>	102	19.35%
TOTAL	527	100.00 %

The companies that were sampled ranged from very old to very recent. The following table gives a view of the years of establishment:

<i>Year Established</i>	<i>Number of Companies</i>	<i>% out of Total</i>
<i>Before 1900</i>	11	2.09%
<i>Between 1901 and 1974</i>	83	15.75%
<i>Between 1975 and 1990</i>	116	22.01%
<i>Between 1991 and 2000</i>	164	31.12%
<i>2001 Until Current</i>	126	23.91%
<i>Not mentioned in the Survey</i>	27	5.12%
TOTAL	527	100.00 %

As for the size of the companies in terms of the number of employees, the following table gives an insight about the data collected:

<i>Range</i>	<i>Number of Employees</i>	<i>% out of Total</i>
<i>Less than 10</i>	161	30.55%
<i>Between 10 and 50</i>	225	42.69%
<i>Between 51 and 100</i>	44	8.35%
<i>Between 101 and 500</i>	65	12.33%
<i>Between 501 and 1000</i>	16	3.04%
<i>Above 1001</i>	16	3.04%
TOTAL	527	100.00 %

The main aim of the study is to examine the factors that affect labor productivity. Investments in planning, hiring, and employee development are tested to measure their influence on labor productivity. The study was conducted by circulating questionnaires to firms in Lebanon. The data was collected by a team of graduate students at the Lebanese American University. The data was collected from different companies and firms belonging to diverse sectors in the Lebanese economy. According to the Lebanese Ministry of Economics and Trade, the breakdown of the GDP by sector is:

SECTOR	% of GDP
<i>Agriculture</i>	6.3
<i>Energy and Water</i>	1.5
<i>Manufacturing</i>	13.5
<i>Construction</i>	9.4
<i>Transport and Communication</i>	5.3
<i>Housing</i>	8.5
<i>Market Services</i>	22.6
<i>Trade</i>	21.3

<i>Non-Market Services</i>	11.6
TOTAL	100

In the questionnaire used in this study, the industry types were the following:

SECTOR
<i>Agriculture</i>
<i>Construction</i>
<i>Finance</i>
<i>Insurance</i>
<i>Real estate</i>
<i>Manufacturing</i>
<i>Transportation and Communications</i>
<i>Wholesale and retail</i>
<i>Services</i>
<i>Other</i>

In order to measure whether the sample of companies is a valid representation of the Lebanese Economy, the percentage per industry was measured and compared to the data provided by the Lebanese Ministry of Economy and Trade. However, the division of sectors was not all the same, therefore, a re-categorization of the sectors used in the questionnaire took place, in order to make them compatible with the data provided by the Lebanese Ministry of Economy and Trade. The re-categorizing is as follows:

SECTOR (AS PER QUESTIONNAIRE)	SECTOR (AS PER MINISTRY OF ECONOMY AND TRADE)
<i>Agriculture</i>	<i>Agriculture</i>
<i>Construction</i>	<i>Construction</i>
<i>Finance</i>	<i>Trade</i>
<i>Services</i>	<i>Market Services</i>
<i>Real estate</i>	<i>Housing</i>
<i>Manufacturing</i>	<i>Manufacturing</i>
<i>Transportation and Communications</i>	<i>Transportation and Communications</i>
<i>Wholesale and retail</i>	<i>Trade</i>
<i>Insurance</i>	<i>Market Services</i>
<i>Other</i>	<i>Other</i>

Accordingly, the following table shows the percentage distribution of the different sectors that the data collected represents versus the percentage of GDP:

<i>SECTOR</i>	<i>DISTRIBUTION OF SAMPLE DATA</i>	<i>% DISTRIBUTION OF SAMPLE DATA</i>	<i>% of GDP</i>
<i>Agriculture</i>	6	1.14	6.3
<i>Energy and Water</i>	0	0.00	1.5
<i>Manufacturing</i>	63	11.95	13.5
<i>Construction</i>	20	3.80	9.4
<i>Transport and Communication</i>	14	2.66	5.3
<i>Housing</i>	8	1.52	8.5
<i>Market Services</i>	194	36.81	22.6
<i>Trade</i>	195	37.00	21.3
<i>Non-Market Services</i>	0	0	11.6
<i>Other</i>	18	3.42	0
<i>No Answer</i>	9	1.71	0
TOTAL	527	100	100

First, the Agriculture sector of the data constitutes 1.14 % of the total sample collected. Whereby, the Lebanese Agriculture represents 6.3 % out of the total economy. This could be due to the fact that the data collection covered mainly the geographical areas of Mount Lebanon and few areas of Beirut; while the main agricultural firms are in the Bekaa region. Second, the energy and water sector is not represented at all in this study. However, this is a relatively minor sector, only 1.5 % of the GDP. Third, manufacturing is very well represented in the data sample since it comprises 11.95 % of the data collected, whereby it also represents 13.5 % of the Lebanese Economy. Fourth, both construction and transportation and communication sectors were represented in the sample data, with a percentage almost half of that of the Lebanese Economy. Fifth, the housing sector represents 1.52 % of the data versus 8.5 % of the GDP. So, this sector is not very well represented in the sample. Sixth, both market services and trade form the heart of the sample data collected since they accumulate to 74 % of the total firms that filled out the questionnaire. These sectors are considerably the largest as well in the Lebanese Economy, with a cumulative percentage of 44 % out of the total GDP.

In general, the allocation of the data collected in the Lebanese Sectors of Economy are well distributed and not clustered in specific industry types

Statistical Model and Definition of the Variables

The statistical tool used in this study is the SPSS version 15.0, based on the 95% confidence interval with $\alpha = 5\%$ being our tolerance level of type I error. A linear regression model is constructed whereby the dependent variable is Labor Productivity (measured by the total output "average net sales" divided by the total input "number of employees"), and the main explanatory variables in the model are: HR investment in planning, hiring, and development.

However, each of these three independent variables is explained by more than one variable, as in the following table:

	<i>Independent Variable</i>	<i>Label</i>
<i>Investment in Planning</i>	<i>Formal planning for number of employees</i>	<i>A.1</i>
	<i>Formal planning of skills</i>	<i>A.2</i>
	<i>Formal Evaluation of hiring policies</i>	<i>A.3</i>
	<i>Succession plans</i>	<i>A.4</i>
	<i>Career path</i>	<i>A.5</i>
<i>Investment in Hiring</i>	<i>Number of candidates interviewed</i>	<i>B.1</i>
	<i>Recruitment Source: Employee Referrals (Labeled as S1)</i>	<i>B.2</i>
	<i>Recruitment Source: Graduate and undergraduate institutions (Labeled as S2)</i>	<i>B.3</i>
	<i>Recruitment Source: Search firms (Labeled as S3)</i>	<i>B.4</i>
	<i>Recruitment Source: Private and governmental employment agencies (Labeled as S4)</i>	<i>B.5</i>
	<i>Recruitment Source: Walk-ins (Labeled as S5)</i>	<i>B.6</i>
	<i>Recruitment Source: Newspaper advertisements (Labeled as S6)</i>	<i>B.7</i>
	<i>Recruitment Source: Internet advertisements (Labeled as S7)</i>	<i>B.8</i>
	<i>Selection Test: Skills</i>	<i>B.9</i>
	<i>Selection Test: Aptitude</i>	<i>B.10</i>
	<i>Selection Test: Behavioral</i>	<i>B.11</i>
	<i>Selection Test: Medical</i>	<i>B.12</i>
<i>Investment in Employee Development</i>	<i>Offer training for employees</i>	<i>C.1</i>
	<i>Promotion from within</i>	<i>C.2</i>
	<i>Number of annual formal training programs</i>	<i>C.3</i>

The main equation of the model constructed in the study is:

$$\text{Labor Productivity} = \beta_0 + \beta_i(\text{Investment in Planning}) + \beta_j(\text{Investment in Hiring}) + \beta_k(\text{Investment in Employee Development})$$

Substituting the labels of the above table in the model equation would yield:

$$\text{Labor Productivity} = \beta_0 + \beta_1 * A.1 + \beta_2 * A.2 + \beta_3 * A.3 + \beta_4 * A.4 + \beta_5 * A.5 + \beta_6 * B.1 + \beta_7 * B.2 + \beta_8 * B.3 + \beta_9 * B.4 + \beta_{10} * B.5 + \beta_{11} * B.6 + \beta_{12} * B.7 + \beta_{13} * B.8 + \beta_{14} * B.9 + \beta_{15} * B.10 + \beta_{16} * B.11 + \beta_{17} * B.12 + \beta_{18} * C.1 + \beta_{19} * C.2 + \beta_{20} * C.3$$

Three different regression models are tested:

- 1) In the first model, the objective is to test the individual effect of **investment in planning** on **labor productivity**.
- 2) In the second model, the objective is to test the individual effect of **investment in hiring** on **labor productivity**.
- 3) In the second model, the objective is to test the individual effect of **investment in employee development** on **labor productivity**.

Measurements and Estimation Technique

Measurements for each of Labor Productivity, Investment in Planning, Investment in Hiring, and Investment in Employee Development are based on a number of factors. For instance concerning labor productivity, the measurement was done based on the company's net sales and the company's number of employees and whether the company's employee rate high as compared to competition. Concerning investment in planning, five distinct bases of investment in planning were used in this study. Whether the business unit formally plans for the number of workers needed to run the business in the future, or whether the business formally plans for the skills needed to run the business in the future, or whether the human resource department formally evaluates its hiring policies on a regular basis and whether the company has succession plans, and is able to replace any individual worker when necessary, and whether the company provides its employees with a clear career path. Concerning investment in hiring, three distinct bases of investment in hiring were used in this study. The number of candidates interviewed on average for every employee hired, the recruitment source, and the selection tests. Three distinct bases show the indicators that measured Investment in Employee Development, and they are whether the company offers training to its employees, whether the company utilizes promotion from within as a primary method for filling vacancies, and whether the company offers formal training to employees.

This study uses a linear regression model to analyze the data. The data were transformed from the questionnaire to the SPSS by substituting the value "1" for "YES" and "2" for "NO", whereby "0" was used to indicate "No answer".

RESULTS

Descriptive Statistics

The following tables give the descriptive statistics of the following variables:

- Highly productive relative to competition
- Investment in R&D
- Expense of R&D
- Personal Opinion on whether investment in planning, hiring and employee development, affect labor productivity.

Statistics

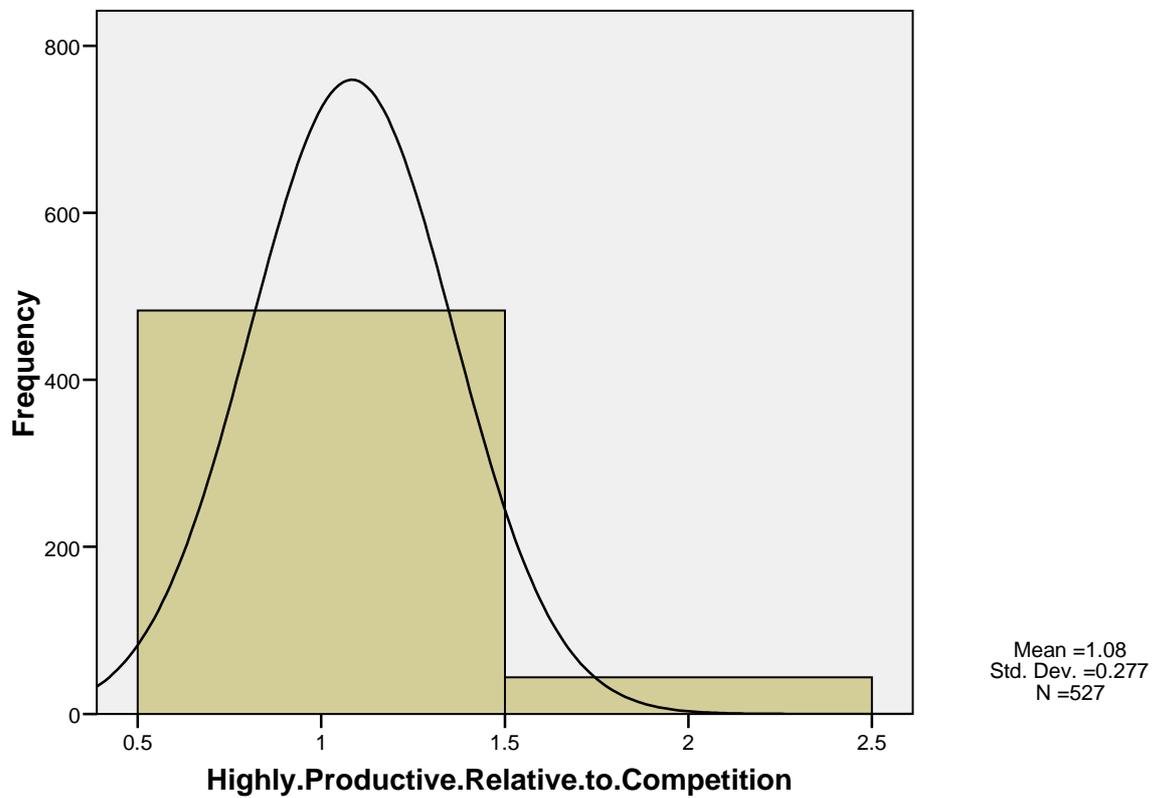
		<i>Highly.Productive.Relat ive.to.Competition</i>	<i>Invest .RnD</i>	<i>Expense.RnD</i>	<i>HR.Invest.Effect .on.Labor.Produc tivity</i>
<i>N</i>	<i>Valid</i>	527	527	527	527
	<i>Missing</i>	0	0	0	0
<i>Mean</i>		1.08	1.59	.63	1.20
<i>Std. Error of Mean</i>		.012	.022	.040	.027
<i>Median</i>		1.00	2.00	.00	1.00
<i>Mode</i>		1	2	0	1
<i>Std. Deviation</i>		.277	.504	.917	.629

Variance	.077	.254	.841	.395
Range	1	2	4	3
Minimum	1	0	0	0
Maximum	2	2	4	3

Highly.Productive.Relative.to.Competition

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	483	91.7	91.7	91.7
	NO	44	8.3	8.3	100.0
Total		527	100.0	100.0	

Highly.Productive.Relative.to.Competition

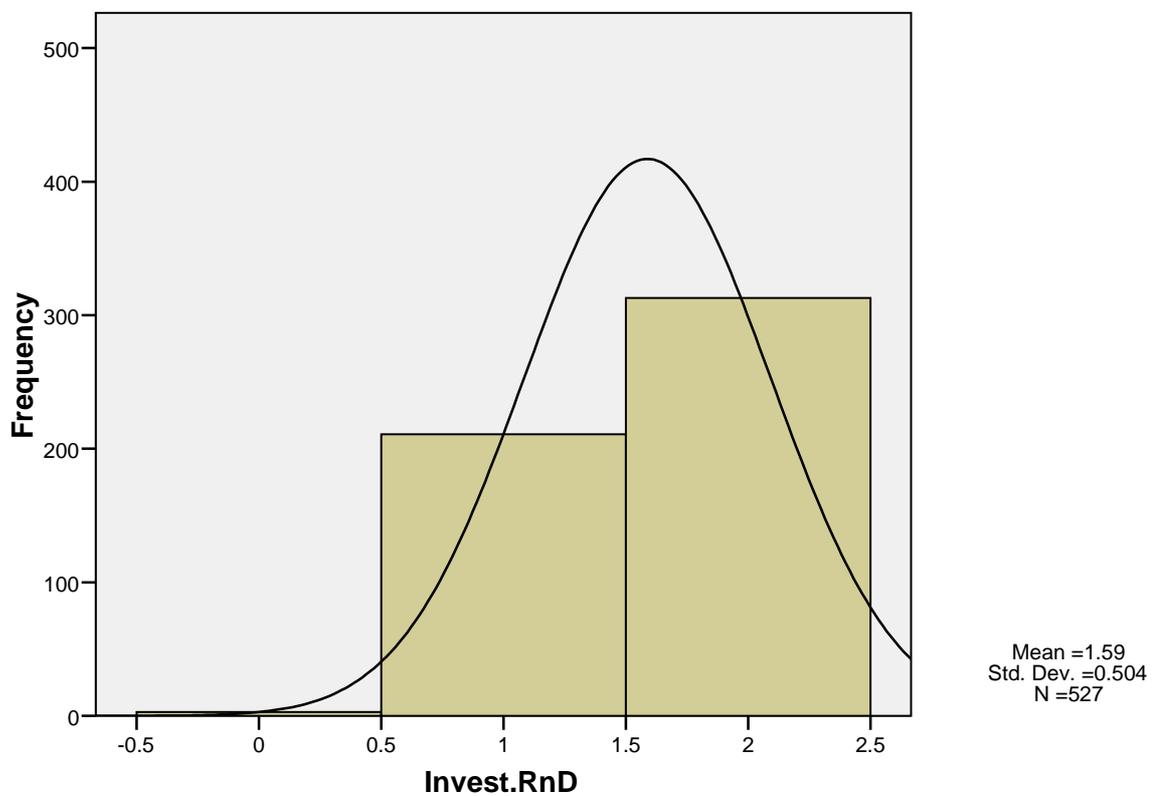


The above statistics show that 91.7 % of the survey answered that their employees are highly productive relative to competition, which is a very good indication.

Invest.RnD

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3	.6	.6	.6
	YES	211	40.0	40.0	40.6
	NO	313	59.4	59.4	100.0
	Total	527	100.0	100.0	

Invest.RnD

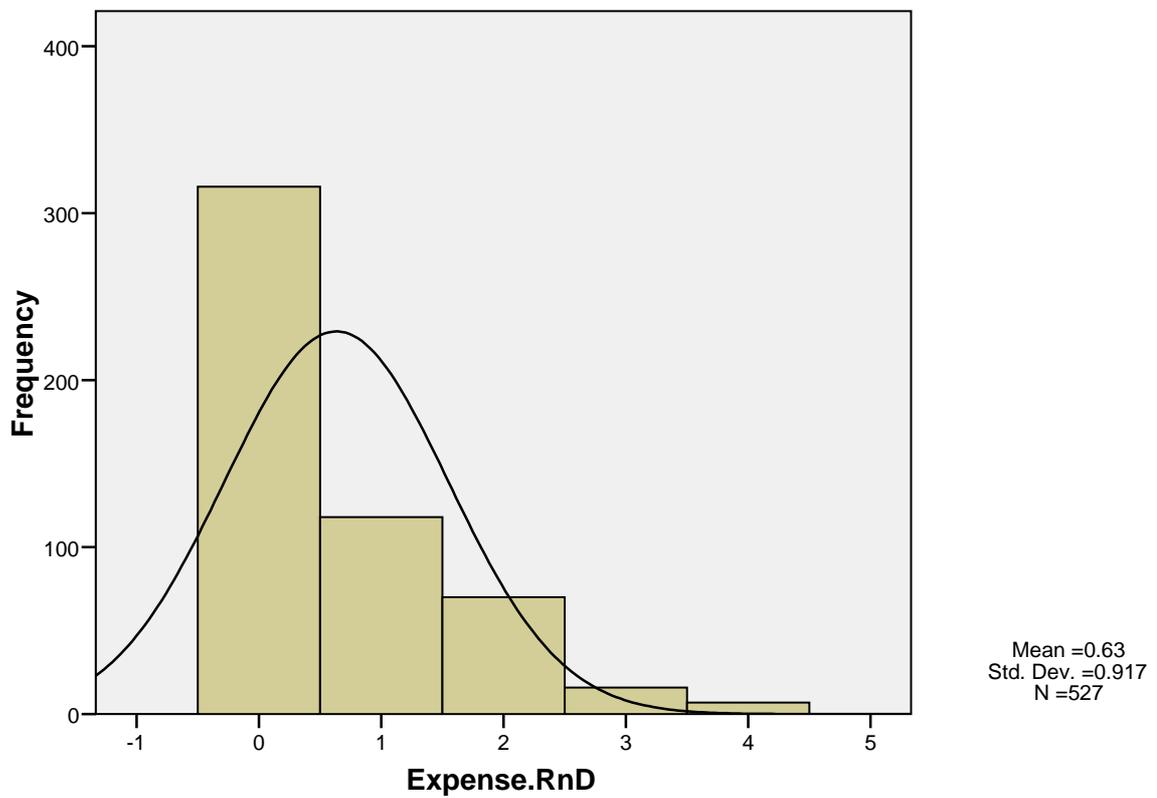


The above statistics show that only 40 % of the survey answered that their companies invest in Research and Development, whereby more than half of the firms affirmed that they do not invest in R&D at all. These results were expected since very few sectors of the Lebanese Economy consider investment in R&D.

Expense.RnD

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Answer	316	60.0	60.0	60.0
	Less than 5 %	118	22.4	22.4	82.4
	Between 5.1 % & 10 %	70	13.3	13.3	95.6
	Between 10.1 % & 20 %	16	3.0	3.0	98.7
	More than 20.1 %	7	1.3	1.3	100.0
	Total	527	100.0	100.0	

Expense.RnD



The above statistics show that out of the 40 % that invest in R&D, the majority spend an amount equivalent to 5 % or less of their total assets on R&D.

HR.Invest.Effect.on.Labor.Productivity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	7	1.3	1.3	1.3
	Positively	459	87.1	87.1	88.4
	Negatively	7	1.3	1.3	89.8
	No Effect	54	10.2	10.2	100.0
	Total	527	100.0	100.0	

HR.Invest.Effect.on.Labor.Productivity



The above statistics give the results of the last question in the survey which indicates that 87.1 % affirm that there is a positive relationship between investing in human resource planning, hiring, employee development and labor productivity. Whereby, 1.3 % actually believes that there is a negative relationship between the variables stated and almost 10 % consider that there is no effect between investment in human resource and labor productivity.

Regression Results

The following two tables show the results for model 1:

Model 1 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.129 ^a	.017	.006	248853.236	.017	1.584	5	467	.163

Coefficients of Model 1:

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	38240.471	51770.337		.739	.460
	Formal.Planning.No. of.Employees	10746.134	31628.553	.019	.340	.734
	Formal.Planning.Skills	-46486.5	35176.170	-.075	-1.322	.187
	Formal.Evaluation. Hiring.Policies	45938.510	26778.006	.090	1.716	.087
	Succession.Plans	41155.095	26456.556	.077	1.556	.120
	Career.Path	-30289.2	25309.273	-.060	-1.197	.232

a. Dependent Variable: Labor.Productivity

Model 1 shows that there is a positive relationship between formal planning of number of employees, to formal evaluation of hiring policies and succession plans with labor productivity. On the other hand, there seems to be a negative relationship between formal planning of skills and career path with labor productivity. Moreover, formal evaluation of hiring policies, formal planning of skills and succession plans are more significant than career path and formal planning of number of employees.

$R^2 = 1.7\%$ and the adjusted $R^2 = 0.6\% \Rightarrow$ which means that 0.6% of variation in Labor Productivity is explained by the regression model (Investment in Planning) after taking into consideration the degrees of freedom and the number of independent variables.

The following two tables show the results for model 2:

Model 2 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.129 ^a	.017	-.010	253091.365	.017	.636	12	451	.811

Coefficients of Model 2

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-150592	218878.7		-.688	.492
	No.Candidates. Interviewed	863.092	683.118	.060	1.263	.207
	S1	15370.878	25547.107	.031	.602	.548
	S2	26592.430	28978.300	.048	.918	.359
	S3	1348.065	47808.626	.001	.028	.978
	S4	13268.511	58344.400	.011	.227	.820
	S5	29918.882	29116.190	.052	1.028	.305
	S6	-29099.8	27292.991	-.055	-1.066	.287
	S7	41721.372	52681.889	.038	.792	.429
	Selection.Test.Skills.Test	-8372.291	26321.612	-.016	-.318	.751
	Selection.Test.Aptitude. Test	-1194.310	32191.006	-.002	-.037	.970
	Selection.Test. Behavioral.Test	7820.584	25694.718	.015	.304	.761
	Selection.Test.Medical. Exam.Test	19733.744	38597.675	.026	.511	.609

a. Dependent Variable: Labor.Productivity

Model 2 shows that there is a positive relationship between the number of candidates interviewed, employee referrals (labeled as S1), graduate and undergraduate institutions (labeled as S2), search firms (labeled as S3), private and governmental employment agencies (labeled as S4), walk-ins (labeled as S5), internet advertisements (labeled as S7), behavioral selection test and medical selection test with labor productivity. On the other hand, there seems be a negative relationship between newspaper advertisement (labeled as S6), skills selection test and aptitude selection test with labor productivity. Moreover, number of candidates interviewed is the most significant variable, whereas search firms (labeled as S3), is the least significant.

$R^2= 1.7\%$ and the adjusted $R^2=1 \%$ => which means that 1% of variation in Labor Productivity is explained by the regression model (Investment in Hiring), after taking into consideration, the degrees of freedom and the number of independent variables.

The following two tables show the results for model 3:

Model 3 Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.093 ^a	.009	.002	252843.574	.009	1.328	3	453	.265

Coefficients of Model 3

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12257.358	44469.364		.276	.783
	Training.Employees	-1038.418	27577.693	-.002	-.038	.970
	Promotion.From.Within	46698.696	24179.628	.092	1.931	.054
	No.Formal.Trainings	-118.670	385.833	-.014	-.308	.759

a. Dependent Variable: Labor.Productivity

Model 3 shows that there is a positive relationship between promotions from within and labor productivity. On the other hand, there seems be a negative relationship between training of employees and number of formal trainings with labor productivity. Moreover, the only significant result among the above three variables is promotion from within.

$R^2= 0.9\%$ and the adjusted $R^2 = 0.2 \%$ => which means that 0.2% of variation in Labor Productivity is explained by the regression model (Investment in Employee Development), after taking into consideration the degrees of freedom and the number of independent variables.

Contribution

This study is based on previous research by Koch and McGrath in the year 1996 that is conducted in the United States of America. However, the contribution of this study will be its implementation to the Lebanese market across various sectors. This is the only study conducted in Lebanon on the topic and considering the variables studied in the paper.

Significance

Today, Human Resource management is becoming more and more an imperative contemporary issue. The field of HR in Lebanon is relatively understudied. The importance of this study is that it covers a significant number of Lebanese Economical sectors with multiple explanatory variables.

DISCUSSION AND CONCLUSION

The study was conducted using a sample of 527 which is considered a good sample representing the Lebanese population; had the study covered a bigger sample size (population), it would have yielded better results. Moreover, the lack of statistical data in Lebanon made this study solely rely on questionnaires that might not be taken seriously by some respondents, and might have eventually led to biased results.

The study shows that there is a positive relationship between promotions from within and labor productivity. On the other hand, there seems to be a negative relationship between training of employees and number of formal trainings with labor productivity. Moreover, the only significant result among the above three variables is promotion from within.

This study contributes to considering the effect of participative leadership (which involves delegation, empowerment, and joint decision making) on employee motivation, loyalty, self-esteem, work attitudes (hence, on employee behavior as a whole), in organizations in Lebanon. The results that this paper came up with, clarify the nature of these relationships. In light of these results, and after testing for each variable alone, testing for the overall significance proved that there is a positive relationship between delegation, empowerment, joint decision making and employee behavior (measured by employee motivation, loyalty, self-esteem, and work attitudes). Delegation was the most statistically significant variable in this study.

In short, it can be clearly shown that participative leadership (particularly delegation) plays a crucial role in positively affecting the overall behavior of the employee in an organization in Lebanon.

Limitation of the study

As previously discussed, some of the Lebanese Economic sectors were either not represented or poorly represented (example, Energy and water). In addition, when computing the Labor productivity in terms of the average net sales, quantitative figures were missing on the questionnaire. Instead, they were substituted by ranges and the average per range was computed when inputting the data to the SPSS. However, both the upper and the lowest brackets were not represented in terms of averages, but in terms of upper or lower boundaries correspondingly.

Recommendations

It is of great importance that thorough future research is conducted to reinforce Human Resource Management in Lebanon in particular and the Middle East in general. Moreover, the belief in the effect of investing in Human Resource that would lead to increase in Labor productivity should be more elaborated and examined. Thorough research is needed so that the study comes up with better, more accurate and more significant results.

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A MODEL OF DEVELOPMENT FOR “TERRITORY” AS A TOURISM PRODUCT AND THE ROLE OF BRANDS IN THE POSITIONING MAP. APPLICATION TO A MEDITERRANEAN AREA IN THE GLOBAL ECONOMY

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In the new scenario dominated by globalization the transnational mobility of capital and people and re-localization of economic activity have strategic importance in different areas and regions. At the same time, external effects of the single territories have a fundamental role in economic development. As a result of these processes, government bodies responsible for local development need to improve how they operate with new function that respond to the need to equip the territory. They also need to organize a development plan capable of stimulating and facilitating productive investment and tourist flows.

The research starts from reflection on tourism through an operational research methodology in order to offer suggestions for tourism development in the Mediterranean.

The **phases of research** are:

- To define the main characteristics of a territory as a tourism product.
- To propose a modality of tourist development based on model “AS-IS TO-BE”.
- To present the positioning map of the tourism territory in the perspective of the proposed model.
- To reflect on the role of Quality Brands in positioning of tourist destination in the Mediterranean.
- Case study: Naples – historic district.

Objective of the present work is to explain and apply a model of development for territory marketing.

The general model is applied to a case study and can be adapted to any territory. The research shows the points of strength that “Mediterranean” area tourism has to offer.

The methodology is based in an innovative approach used in the interpretation of the statistical pointers and compares the present situation (As Is) with the ideal one (To Be), in relation to strategies and policies with levels of sustainable performance (Ferri M. F., Aiello L., 2009).

The objective is to connect the different elements of tourism system, to eliminate negative and to promote positive impact and in finally to improve efficiency.

In this context a policy of step-by-step development can guarantee stable improvement. In the light of the complexity of the object of the survey, a “bottom-up” approach has been applied.

The **final part** of the research explains the application of position maps for territory tourism product “to map” a Quality Brand of Naples as a core city of the Mediterranean.

Research limitation: the model proposed is inserted in a broader field of research of territory marketing that merely connected to the territory.

Keywords: Tourist destination – Position map – “AS-IS TO-BE” model.

METHODOLOGY NOTE

The concept of tourism⁹⁰ product is involved two perspectives: *business*, like product of the single *territorial* operator and like product "territory" (Martellotti, 2008).

Both must be coherent, in such optical it is necessary that the resources of the territory (economic, acclimatizes them, associate-cultural) come invested in the tourist product of the same one and is in this optical that speaks about tourist destination⁹¹ (Ejarque J., 2003).

The tourist destination is the fruit of the system management of the territory⁹², to aim to make available it to the tourist flows. From the tourism they derive, therefore, the following impacts: it generates wealth for the local actors, orients local the economic activities, it addresses the political activities and social, "it consumes" resources, it demands infrastructures, it produces to refusals and requirements of consumption (energy, water, transports).

The tourist product of a destination is given from the "sum" of the single products offers from the tourist companies presents on the territory.

In order to considerations proposed a model of tourist development, than part from the following requirements:

- to plan the participations aimed at the territorial development in a strategic optical of development;
- to pass from activation to performance of the process face to define a development model;
- to concert the local actors private publics and, being involved all the local, city actors comprised
- to support policies of territorial development in advantage of the tourist development;

⁹⁰ *The tourism's definition accepted to international level is "the term tourism is the activity carried out in humans - for fun, business or other reason - during travels and stays in a place outside their usual environment for a period less than one year" Definition of United Nations Statistical Commission (1993), session XXVII of ONU. In order this definition is the consumer that with his behaviour, when he buys and uses goods and services (commercial and non-commercial) such qualifying activities as tourism products.*

⁹¹ *Mussner, Pechlaner, Schoenhuber (1999) define the destination as "territorial space geographical defined, it is capable of expressing one or more tourism products, thanks to the presence of factors of attractiveness of natural and artificial, controlled and operated by an articulated set of actors among their coordinates with the presence of a body meta-level".*

⁹² *Each destination is subject to use by a variety of users: they are not included among the tourists only. Should, in fact, including, but residents and workers, as also users of the space, facilities and services in the territory. The identification of subjects that are part of is essential for the definition of a tourist destination, the key players, each of which presents different peculiarities are: tourists, intent on meeting their own needs and the local population, which are poured issues relating to environmental sustainability, social and economic infrastructure, is also known as "passive tourism", the tourist industry (accommodation and catering, tour operators, travel agents, guides, attraction of businesses, etc.), whose activity is supporting the development of tourist destination and thus the economic return in terms of profit and the public sector, which sees tourism as a means of stimulating the development of the local economy, especially through increased employment, and that should take care of business within its powers to encourage this. At a tourist destination is a plurality of elements: attractions (elements able to exercise a kind of tourist interest); the amenities (hotels, restaurants, entertainment; infrastructure: any form of construction, usually made by the public sector, needed for communication and mobility; additional services, made available by local organizations.*

- to exceed the promotion of the resources, arriving to policies of tourist product;
- to create excellence of products beyond that of resources;
- to communicate the asset outside material and immaterial that the territory can offer;
- to place like objective the quality of the offer of the destination.

In the present work on compared - in relation to the main items - the territory system with the tourist system, the objective is that one to transform criticalities and weaknesses in opportunity and strength, in virtues of a circular process of efficiency/effectiveness, it's best explicit in a model defined "virtual chain of the impact-outputs" of the ideal situation regarding that of state.

The model points are: to define the methodology and the tasks of departure; to verify the prefeasibility by means of a state analysis; to establish the conditions of feasibility, elaborate a possible strategy for Local Tourist System for the total competition; to activate the phase of start-up through the elaboration of possible operating policies online with the shown strategy; to monitor the gap in order to characterize the coherence between the analyses elaborated and the proposed strategies.

In the model of development – as it has been traced – the positioning (Ferrero G., 2008) have a special role and it has as objectives: to evidence the steps in order to pass from the situation puts into effect them and that favourable one of a tourist destination; to propose coherent variable new of positioning to the traced tourist product in the research.

Once elaborated and integrated the model with three positioning maps the *added value* of the present search is to trace "new" a positioning of Naples which tourist destination of the Mediterranean.

The first position maps places Naples in order to two variables: orientation of touristic destination and strategy applied. The object is check if the city is a touristic destination.

The second position map places Naples in relation to two variables: Product system and quality.

The tried position map places Naples in order to three variables: development of touristic destination system, joint management and quality.

In this optical, then, the quality of a tourist destination assumes a determining role, to such scope this concept assumes various declinations regarding the several been involved systemic members: the business quality, that it must be oriented to the search of appreciated standards of comfort to international level, to the facility of access of the services; the territorial quality acclimatizes them, that it must find again qualitative pointers acclimatizes connected them to the energetic saving, to the valorisation of the local identities, to the engagement to the reduction of the produced refusals and to echo-compatible digestion; the perceived quality and moves them, that it must be oriented according to relative qualitative pointers to the tourist fruitions of the service.

If for the single tourist activities already they have been put into effect systems of quality, for an objective such territory is more complex, here because only a model that goes to continuously monitor input/the outputs of the "produce-destination", according to a logic *plan-do-check-act*, can represent a departure point in order to catch up the objective.

A reflection is due: the proposed thesis cannot irrespective from the following task "us must be coherence between Identity and Image" (Siano A., 2002), if this is true us must be coherence between "caught up quality/communicated quality/perceived quality".

sviluppo locale. Every organization is managed from policy maker, that represents the different stakeholders, sarebbe ottimale che ogni singolo intervento locale confluisse in un unico "macro-piano" di sviluppo al fine di non disperdere risorse. At its heart is the ability to coordinate and integrate the various stakeholders, a proposal is to be from a macro-common aim in the present work aims tourism and culture as a strategic node to achieve concerted planning. The motivation behind the proposal is that tourism is a human activity in which complex confluence of different activities, services and goods. If a tourist, as a citizen of the temporary city that is satisfied with the visit is clear that it is attractive, if an area is attractive means that it is able to hold people and meet their needs, and then flows to attract human economic, financial, invested properly, increase the level of attraction to the outside.

Exposed arising from the assumption on two considerations:

- an area that meets the needs of a national temporary agency is able to meet those of a citizen and vice versa;
- increasing flow positive (human, financial, monetary) involve increasing the level of local performances.

The "macro-plan" of local development, then, must coincide with a plan to develop cultural tourism at the base is the spatial analysis. The phases of the analysis are: to develop a map of resources, integration of elements spatial enhancement and transformation of resources into product "territory". Territorial marketing is based on competition between areas as these are considered as one enterprise. In that regard, the territory must be efficient in all its parts from both the economically and socially. The local context has the resources and not reproducible, therefore, management must take into account ethical, social and environmental policies to protect these resources, without limiting its use. The strategic objectives of local marketing leads along four main lines: the market focus, customer orientation, coordination of marketing activities and profitability. The market focus means carefully defining the target segment, customer orientation implies a relational approach to direct. The coordination of marketing means integrating business functions and operational policies. Profitability, finally, is the goal of survival and optimal development in the case that a competitive firm can achieve through their market decisions. In other words, the aim of selecting emerging opportunities and compare them with the resources and expertise available, define the actions to achieve specific objectives. The marketing action is very closely linked with the formulation of corporate strategy in the sense that the choices inherent in the relationship with the market are the result of a decision-making process related to the product, price, marketing and communication. A product such as the territory, however, must have a strong identity, marketing needs to promote and support the territorial area, its characteristics and its prospects for attracting outside investment and visitors in order to achieve this model of identity management product integration between what the land really is in its qualifying characteristics (place-personality) and what he wants to represent not ignore market expectations (place-image). However, to promote and support not only means to invest in advertising and communication, but to offer positive incentives and pressures for tourist operators in order to successfully implement specific operational policies and consistent with those premises. To accomplish these steps you need to implement a regional marketing, as any product must have a strong identity and must meet the expectations. The Territory as PT (Tourist Product) to produce endogenous growth processes and sustainable, the territory has to use its key factors in this paper are those factors that characterize the proposed cultural (PTC, cultural tourism product). The territory is not seen as mere recipients of effects caused by social actions, political and economic, as the surface on which you project something already drawn elsewhere. If this were the land policies should be implemented as unnecessary.

The territorial dimension plays an increasing role within the local development processes and policies to promote it. The development of a production system is linked to the development of its territory, intending to land not only the geographical aspect, macroeconomics, but all public and private entities that contribute to providing a configuration to the social, economic and institutional framework and determine the competitiveness. Included in this context, public institutions, forces employers and employees with their technical knowledge and their habits, economic and social infrastructure, the urban structure, local banks, universities, research centres. The development of the territory is the result of dynamic processes that exploit the available resources, promoting and planning interventions that can engage the public, private and economic ones local professional.

The local development actions must be directed at the exploitation of persons, environment and businesses by building synergies between the economic, land resources, local communities and institutions. In favour of local enhancement also plays the theme of sustainability, when a dispute more difficult to interpret beyond the commonly accepted definition: "Development is sustainable when it meets the needs of present generations without compromising the ability of future generations to meet their own needs". It probably does not exist a model of society compatible with the environment and that, rather than give you a number of roads passable as places and times. It is in any case give rise to a detailed regulatory intervention on the territory, developing an approach based on choices over time and differentiated in space.

A process of enhancing the cultural product by the rules of sustainable development must take into account three types of factors. The time factor, without which there is no viable business strategy: in this perspective becomes necessary instruments that reward the dynamic orientation to the direction chosen by penalizing - counter-static situations. The factor "area", which requires operations conform to environmental and socio-economic conditions of the territory concerned by differentiating measures to allow gradual transition from a phase of selective defence to one of overall protection, including the adoption of new tools information and communication as well as regulators. The factor "enjoyment" related to the transition from a simple defence of their cultural heritage and environmental enhancement and management. The territory to the objectives of development and cultural tourism cultural product must become integrated.

In according to Caroli (2006) the improvement of territory competitively one applied on two connection condition: i) reinforce of *contest* conditions that have an impact on potential competitive of economic local actors; ii) reinforce of condition that determines the potential value of territory that is created from economic local actors. Across the first type of intervention, the territory offers to economic actors the best conditions (although by themselves not are sufficient) to consolidate a competitive advantage internationally, the second actions are essential for local economic actors which use the international competitive strength of the area that also benefits the host from which factors they derive strength.

The competitiveness of a region, then, is the result of a "virtuous" circle, the contextual conditions determining the competitive advantage of enterprises such as the territories, the competitive advantage influence the value created for the benefit of companies that are part of the territory, value that reconfigures and redraws the state conditions. In line with this theory in this paper, one proposed the cultural product of territory as the competitive advantage of the local system and the input into creation of value.

INTEGRATED CULTURAL PRODUCT.

The elaboration and exploitation of strategies' paper presumes a focus on tourism and on cultural activity, because, in the article, Culture is considered an attractor of a touristic destination. The first step to define the cultural product is Italian Legislative Decree n. 42/2004 that, in Art. 2, defines the cultural goods as *the still and mobile things that, by articles 10 and 11, have artistic, historical, archaeological, ethno-anthropological, archival and bibliographic interest and other things admitted by law or based on the value of civility*. In the paper we go up to this definition, because it's restricted so they assume a perspective more extended and they consider even the activity that has cultural value but that doesn't belong to the definition of Decree. The interest that one place, in fact, is the analysis of all cultural activity and of their economic valorisation, one has nothing to do with legal aspects, that is limits. One proposes a new definition of cultural product: still and mobile things (strong sense), activities, services and all consumer goods (wide sense) that have a direct and/or indirect link with culture of one or more civilizations. The common point between all cultural products, then, is the social finality, so the cultural growth of the community, into an perspective of economic valorisation whether a discography, cinematographic product or whether a Museum. This social value does not exclude that economic, in fact the management must promote the development of good and the protection and preservation of culture. This, maintained from legal discipline also, so, the cultural goods, for the legislative decree n. 112 (1998), must be protected, managed and increase the value; these activities imply an use of public and private resources and instruments and that only mechanisms at chain of responsibility and of sensitivity can support. The Cultural value does not prevail on that economic but one combines it into a mix between good development, the protection and the preservation of culture, one achieves that the artistic creation isn't the arrival point but the start point of development policies. If Italian scenery is dominated from the concept of Cultural goods' protection at International level prevails that of Heritage (inheritance, economic valorisation), one takes on, then a definition of culture share to international level (Solima L., 2006).

The socio-political developments have also prompted organizations to adopt new strategies managers in adopting management and marketing tools based on new perspectives that see the integration of social goals with economic ones in order to meet the social needs related to culture. The main changes have concerned the nature of public administration, increase management skills of professionals, the increasing complexity of competition, new alliances between art and economy, the increasingly close relationship between mobility and increase cultural tourism demand. All this implies the need for a cultural product that moves the following hypothesis: the elements of the area should be promoted and offered on the market, the presence of a resource, and not enough development but it should be integrated into the overall offering. Any project of integration of the cultural product in the territory should ensure consistency between the objectives of asset management and those of the territorial system in the three conditions identified in the context of geographical area covered (material capital, intellectual capital and policies). The enterprise has a Cultural Product in the identification and characterization far more complex than before, in fact, both managers and the users / beneficiaries of the cultural resource must "strive" to turn it into Integrated Cultural Product. The representation shown in the figure defines the Integrated Cultural Products and expresses individual items.

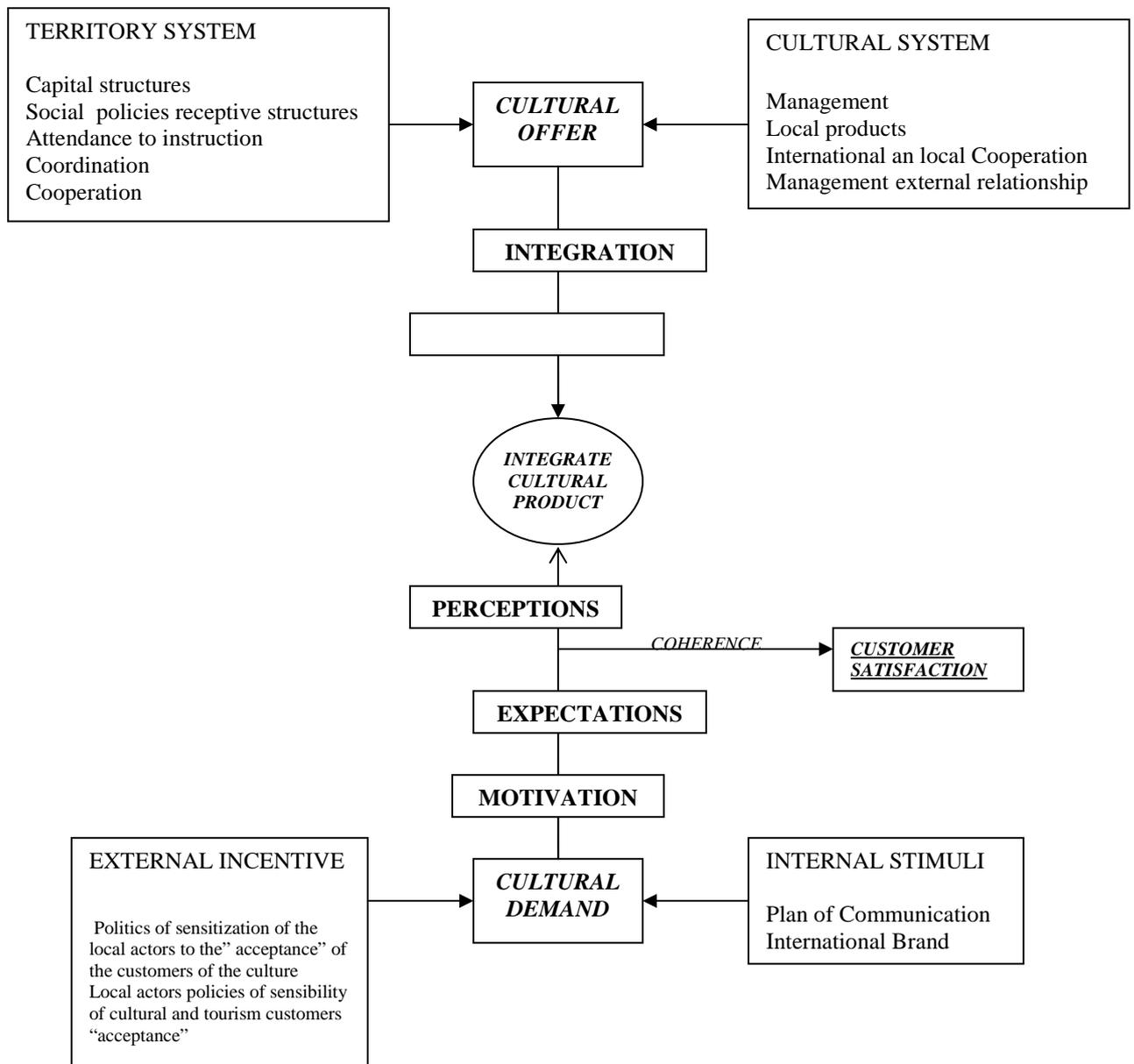


Figure 2: Integrated Cultural Product. Source: ours elaboration

The representation of the Integrated Cultural Products considers both the supply and demand. The offer is given by the integration of external elements (environmental resources, infrastructure, incentives), internal (communication operations, integration and coordination) and cultural competence (knowledge, management skills).

The cultural demand is stimulated by external - the environmental conditions and usage of activities - and the inside - communication and promotion of the product. These stimuli, in the perspective of customer satisfaction, determine, therefore, the motivation to purchase the product by creating the cultural expectations to be met at the stage of consumption. From the figure also reveal two fundamental requirements: to define the cultural system and the land system in order to achieve two objectives, that of integration of the cultural product and the satisfaction of "application / user" culture. To the left of the graph are represented as

elements of the system while at right the territory of the cultural system. To arrive at the integrated cultural product is realized, factor integrated product, which the following passage: cultural resource requires a mutual relationship between elements of the cultural system and spatial reference system, "exploitable" by inputs from SBC (system cultural heritage) pass to the ST (land system) and "exploitable" by TD pass to input from SBC. It is in pursuance of such mutual relations that the sense of cultural activities in the Integrated Cultural products become creative excellence in the development of a particular geographical area.

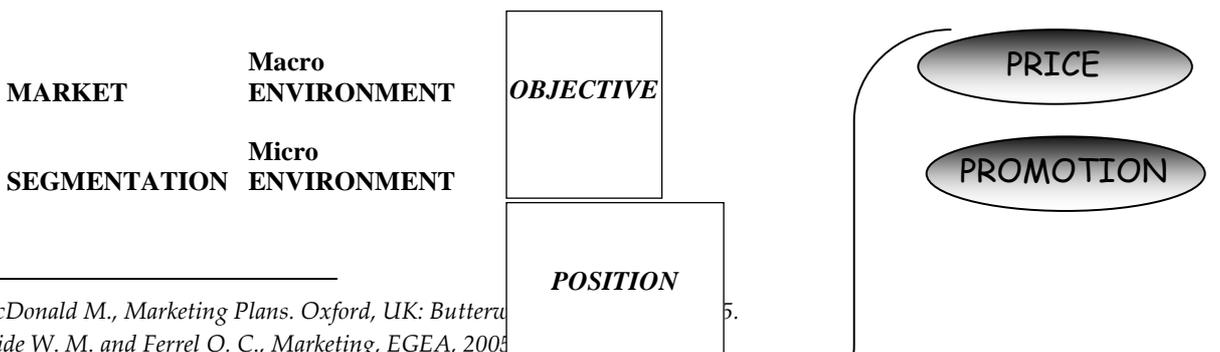
The evaluation of the Integrated Cultural Product includes the following phases: analysis of internal and external factors (environmental, economic, political and social system), definition of objectives that the cultural system arises; assessing the effects of actions that the system wants to activate / implement ; monitoring of interventions according to the logic Plan Do Check Act. Ultimately, the elements of the cultural system, integrated with those of the territory, implement measures to develop and pursue the goals that involve several categories of stakeholders, taking as the ultimate local sustainable development in a sustainable perspective. Having defined the concept and role of territory in the process of development of society and established the social and economic development of the cultural activities of an urban system, to see how they actually contribute to increasing the competitiveness of a region should place them in the territory same. A useful document for this purpose is the marketing plan, summarized in three main roles: 1) analysis -2) strategies -3) operational policies and actions.

THE MARKETING PLAN BY TOURISM PRODUCT "DESTINATION".

In according to Mc-Donald M. the marketing plan⁹³ is an management instrument, its role is delineated the strategies and put in action the operative politics. In the figure n. 3 one present a representation of marketing plan (Ferri M. A. and Aiello L., 2009).

The marketing plan is composed from SWOT Analysis⁹⁴ (Strength, Weakness, Opportunities and Threat), it's important in order put in action a checks on internal – business area – and external environmental – the macro-environment (economic, social, cultural, environmental system) and the micro-environment (context competitive, market) in particular one define the target and the possible segment; competition, in relation to ASA (affair strategic area, Alvino, 2009). The second stage of marketing plan is the Gap Analysis, it highlights the difference between obtain objective and predict objective.

This analysis permits the passage from actual situation and optimal situation. The successive step is the strategy, that defines the strategy and the position in order to the select target.



⁹³ McDonald M., *Marketing Plans*. Oxford, UK: Butterworth, 1995.

⁹⁴ Pride W. M. and Ferrel O. C., *Marketing*, EGEA, 2003.

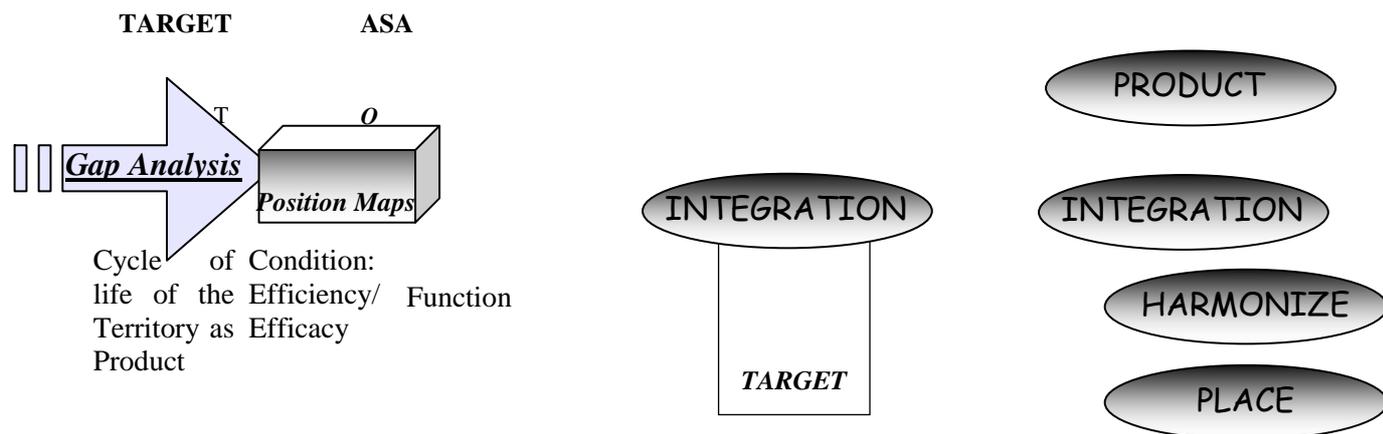


Figure 3 – The Plan of Marketing. Source: ours elaboration.

In this dissertation the focus is the positioning of a tourism destination, but it's essential to do a zoom on SWOT analysis, that is the basis of maps and positioning of the instrument of analysis that is proposed here.

In particular, the SWOT analysis of a tourist destination is divided into internal analysis, which consists of identifying the location of the area in regional, national and international level and strengths and weaknesses of the local economy especially in relation to the issues considered strategic; external analysis, which consists of an analysis of the situation, changes and trends of the framework, international, national and regional level, the situation in other communities with similar problems, elements of the framework on which there is no possibility of control, but that affect the definition of the perspective of the territory and the product of elements that most directly touch on the strategic issues.

From which arise the main threats and opportunities. Once you have set the stage structure, in terms of threats/opportunities and the main strengths and weaknesses, the next phase of the plan is the identification of market segments and the target goal to be met, to arrive at the final stage of policy making marketing mix that define the way in which targets must be achieved.

In the SWOT analysis of territory is important to identify contest and business factors, the following table summarizes the main aspects to be investigated.

TERRITORIAY STRATEGY: Territory	BUSINESS STRATEGY: Tourism and Culture
<i>Security</i>	<i>Efficiency</i>
<i>Reputation of Region⁹⁵</i>	<i>Reputation of Enterprises⁹⁶</i>
<i>Accessibilità fisica e virtuale</i>	<i>Erogazione fisica e virtuale</i>
<i>Hospitality</i>	<i>Product</i>
<i>Society - culture</i>	<i>Human resources and professionalism</i>

⁹⁵ Concept Image: The idea of region that is communicated externally. Concept of Identity: The perception of the region.

⁹⁶ Concept of Corporate Image: the idea of product or brand that is communicated externally. Concept of Corporate Identity: The perception of the product and / or brand.

<i>Resources and factors of territorial attraction</i>	<i>Resources and factors utilized to tourist industry</i>
<i>Economy and National and international financial resources</i>	<i>Economic and financial</i>
<i>Image of Territory</i>	<i>Image of firms</i>
<i>Strong Positioning</i>	<i>Strong Positioning</i>

Table 1 – Elements of territorial analysis⁹⁷. Source: ours elaboration

The strength of the survey is the comparison and integration of critical points of both the territory and business strategies, as it is believed that between the territory and areas of business, there must be a virtuous process by which one can compete on global markets. For example if the area image is strong at the global markets but enterprise is weak, there is a critical element in the processes of globalization for both businesses and for the local system, and vice versa, this observation is valid to all elements proposed that doesn't represent an exhaustive list, as it can be extended or modified in relation to the needs of the development plan.

If the marketing plan proposed is the conceptual framework of territorial development plans, in the article will present some tools to support the plan, such as the AS-IS TO-BE analysis, positioning maps and policies of Quality Brand.

Whose depth is in the following paragraphs. At this level of research the operational phase of the plan will not be mentioned explicitly but only a proposal possible: the District of Culture.

Il modello "AS-IS TO-BE" per lo sviluppo regionale.

Model shows outlines by analysis of intervention the phases from realization into a development plan and it highlight the circular process.

⁹⁷ *Elaboration of model of Ferri, Aiello in Tagliacarne publication, 2009.*

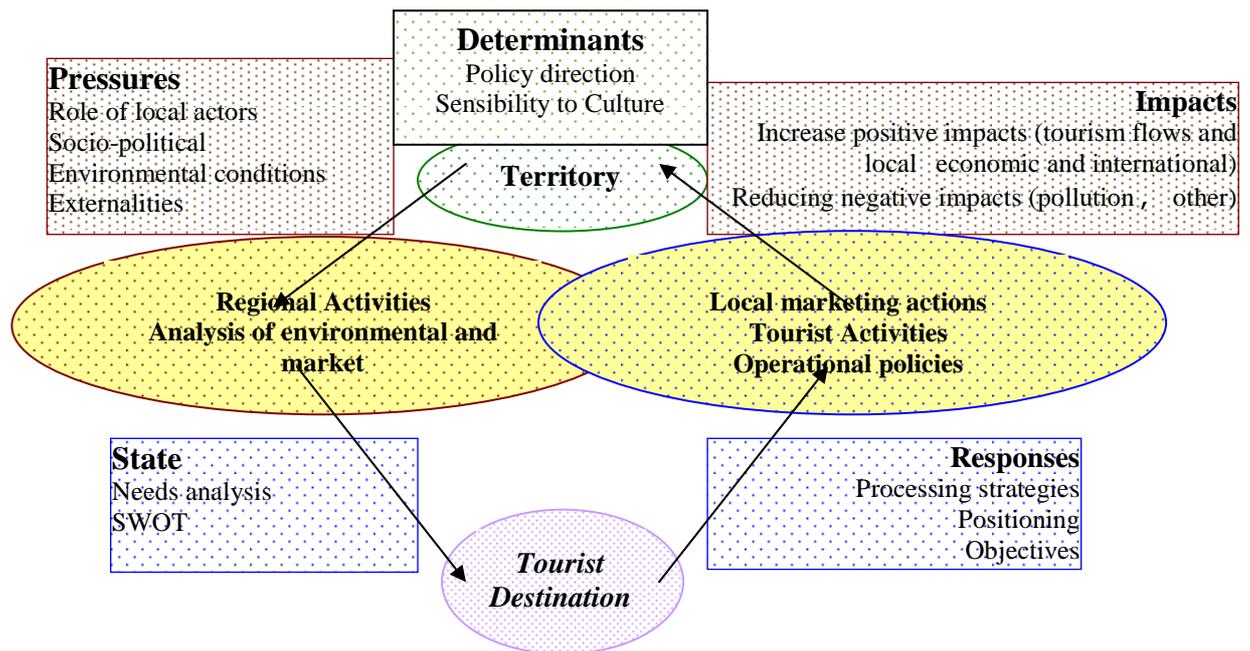


Figure 4 – The circular process determinants–pressures–state–responses–impacts. Source: ours elaboration on Model of EEA⁹⁸ (European Environment Agency)

In more detail, the basic determinants are the factors that influence the range of variables considered such as cultural values, the pressures identified, the (positive or negative) stimuli on cultural activities such as the presence of cultural associations. Conditions indicates the current state of the cultural system, i.e. number of employees, number of visitors, level of protection and development of structure, etc., while impact describes the ultimate effects of changes conditions, namely sets of input/output within the system as a (cultural), and between it and system relevant territory (territory), i.e. level of employment generated by culture, number of visitors attracted to the territory. Responses indicate the efforts/commitments on the tourism enterprises claiming to resolve problems and to develop the potential to inside and outside the cultural system, such as investments in the conservation and enhancement of cultural products, in the awareness of cultural resources or investments in training (M. A. Ferri, 2006).

Each element of the model can be applied to several or all the land areas such as the environment, the economy, the society, etc. The *pressure-state*-model analysis approach is the starting point for territory development and should be an essential element of territorial marketing planning.

The following figure summarizes in a single model phases of the marketing plan in the light of the *analysis-pressure-state-response* perspective, furthermore it considers the circular development process based on logical sequence of plan-do-check-act, which requires constant monitoring and comparison between the actual (AS-IS) and the desirable (TO-BE) state.

⁹⁸ Deepen: www.eea.eu.int.

Regions

Municipality

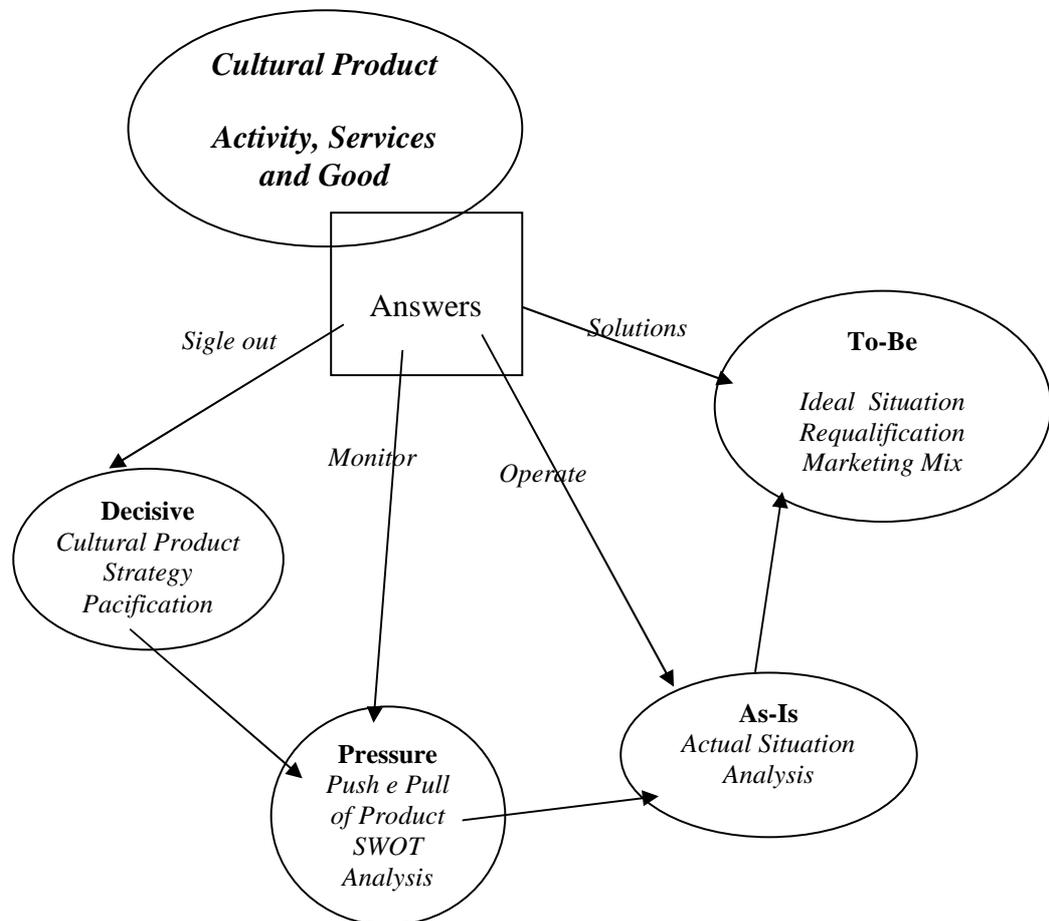


Figure 5 – “As Is – To Be” Model

In the elaboration of Marketing Plan this is an instrument useful in order to obtain a chain motive “cause and effect” (efficient and effective). It allows a continuous monitoring of the elaborated strategies and the put into effect policies (Ferri M. A and Aiello L., 2009).

The model is a tool, in the marketing plan, for the switch from the analysis/implementation state to local development actions.

This tool identify the connection with the various elements of the cultural and territorial system, in order to a causal chain between As-Is and To Be situation of cultural and territorial system.

The application of the model must be supported by summary indicators that represent the various elements of the causal chain of inter-relationships possible in the model to the Cultural Heritage. A system of economic and social indicators must meet the following basic features: coverage of the "European dimension" in terms of identity and cohesion, the implementation of new dimensions related to welfare and social change, including through the search for new indicators and the creation of new data sets harmonized between countries belonging to the Union. The set of possible indicators should not be considered neither rigid nor a necessary step for the development of the model, just wants to be supportive and synthesis of cause and effect

relationships of the input/output system of cultural property. The elaboration of the model starts from the identification of causes (determinants, pressure) of development or stall or decline the offer integrated land through the cultural resources that define the current state of that offer (state) and the mutual relationships to ' internal system area (impact) to identify the actions/reactions that activate the relevant bodies / implemented to achieve sustainable development.

POSITIONING AND MAPS.

Positioning is an important link in the marketing plan. The aim of positioning according to Kotler is that the product placed on the market by a business offers an advantage, meets the target and satisfies target expectations and his based on distinctive and quality features. The effective and potential customer perceives all the elements of the product, such as image (brand), that are evident and easy to link with the category.

Placement of the product shows the way the product is placed in the consumer's mind with reference to the abovementioned features which determine differed responses (Kotler, 2006).

The objective of the research is to demonstrate how the international positioning⁹⁹ of a tourist product changes in relation to its dimensional characteristics. The main marketing tool applied for positioning is the positioning map.

The positioning identifies the relevant market; a definition of product characteristics that have greater weight in the choice of consumption / use by the market / consumer; a choice of scale of measurement of attributes; a range of judgements made by consumers on the specific attributes of the different brands and the importance assigned to them in the choice of each brand.

The positioning map has to a synthesizing functions, reducing the number of variables considered in the elaboration of map, placing the opinions expressed by consumers with regard to the attributes sought from the different brands in the space of two or more dimensions (Aiello L. & Cacia C., 2009).

The positioning of tourist destinations is more difficult because it is composed of different elements, such as goods, services, resources and competences (meals; water; transport, accommodation, etc.).

This approach considers three positioning maps. The first places the destination system in relation to two variables: trends and applied strategy.

⁹⁹For further information: Rics A., *Positioning. Weapon in winning the battle for the mind of the consumer*, McGraw-Hill, Milano, 1986.

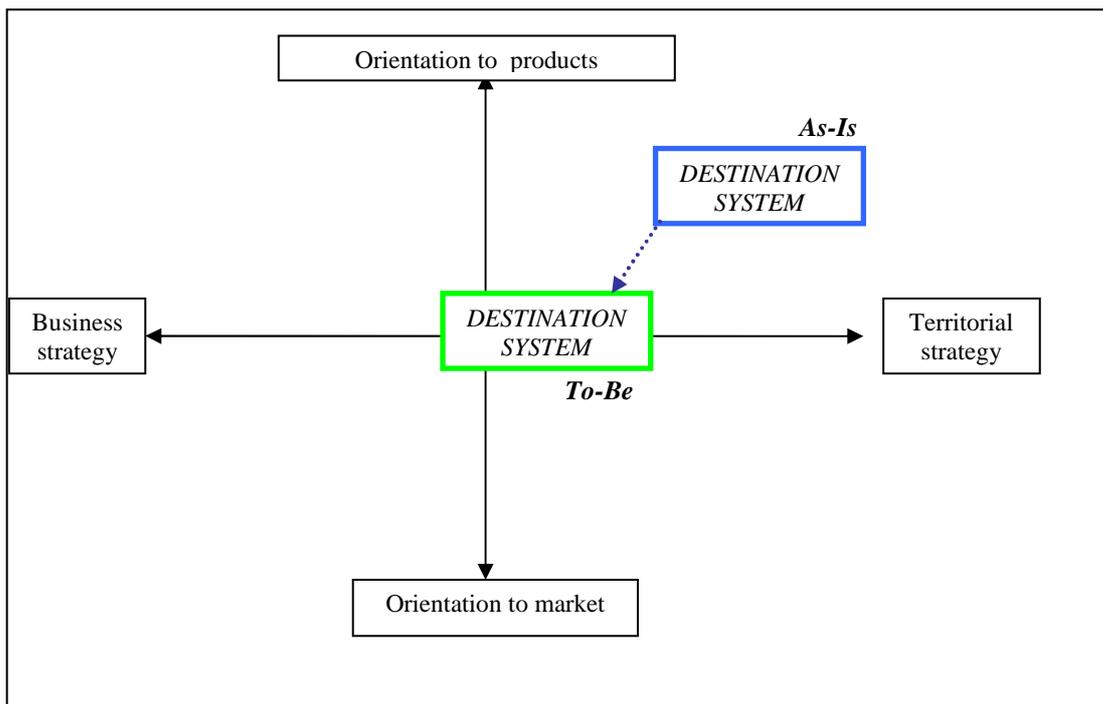


Figure 6 – Positioning map: Orientation and Strategy - Tourist Destination System. Source: ours elaboration

Generally a tourist destination is positioned as a orientation to product and a territorial strategy, however, the ideal positioning is a central position, as a territory must be able to integrate with the territorial enterprises and local policies. In other words, geared to an integrate product market. To be competitive, a tourist destination has to implement integration processes and therefore the ideal condition is an integrated development plan.

Elements include: receptive structures; transport system; territory system; business economy, etc, and in particular the cultural integrated product (rif. Fig. 2).

Actions determining the CIP (Cultural Integrated product) are:

- offer: synergies; integration; communication.
- demand: pushing; creating expectations and perceptions.

As can be seen in figure n° 6 the matrix is applied to cultural products, which are integral parts of the CIP.

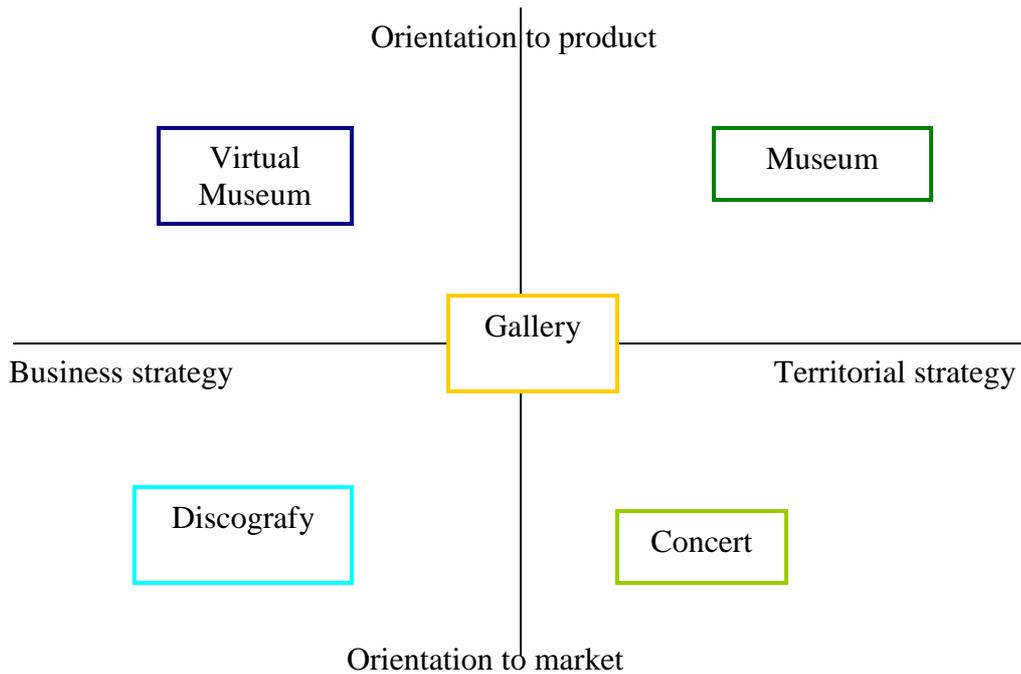


Figure 7 – "Map of the main types of cultural activities based on the variables Orientation and strategies. Source: Ours elaboration"

The matrix, in this case, is a strategic tool for evaluating the binding of cultural product with the reference area and facilitates the department manager in the design and choice of policy interventions on the initiatives present in a certain territorial area.

In the map were positioned some cultural products in a strict sense that in its broadest sense, in general, the former having an orientation to the product of a spatial strategy, those in the broad sense are oriented to the market and corporate strategy. The dividing line is not so clear, in reality, it is possible for a museum (strictly) pursue market-oriented management and strategy planning, is the case of a virtual museum.

Under variable-orientation can not ignore the enhancement products to protect and conserve the resource and the cultural demand should be stimulated in relation to the needs of protection (archaeological excavation). Guidance to the market valuation of the activity depends on the need to meet that is the basis of the value chain (discography). Between these two extremes lie the tasks that must be projected to the market but at the same time with the product, such as an art gallery must choose the paintings to be exhibited in the present application, exposure, however, also entails "measures protection of the asset (such as security measures).

The other variable of the model is the strategy that can follow two approaches:

1. Planning, management time with the protection and enhancement of cultural activity closely linked to the territory of reference.
2. Companies in order to spread the indirect impact of cultural activity in the territory of reference.

Territorial approach, once selected the cultural resource, the parties involved in processing the resource cultural factor. By processes of integration factor becomes

integrated cultural product, at the end of the process is able to offer users a cultural experience.

Corporate approach is a different location: the point of departure is the idea of product, which converge on the processes of cooperation and promotion that transform the idea into a cultural product integrated.

A museum directly involves several elements of the area (i.e. discount policies, creation of an integrated circuit as *ArteCard*) then is positioned in the spatial strategy, whereas the distribution of a disk (broad sense) is part of corporate strategy at the label. The management of the activities taking place between the two extremes, such as distribution of a concert, requires collaboration between the organizer of the event and the system area (government, transportation, security).

The definition given in the preceding paragraph of cultural product integration allows you to combine various styles and strategic approaches mentioned, with the aim of finding those intervention policies, aimed at improving the competitiveness of the territory. The array of placement, as well as being a tool to assess the cultural activity, one can identify the stakeholders responsible for the "platform" of culture. There are two basic categories: primary actors such as owners (public or private), the operators (public or private), suppliers, employees and customers, supporting actor, that is, those that affect primarily indirectly on cultural property. The latter group comprises the authorities (at both national and local), donors (public or private), donors, scientific communities, opinion leaders, local actors (i.e. tourism, commercial, health), the actors local (residents), the media. Know the strategic actors facilitates the integration processes in the development plans based on processes of competition.

In according to Carol (2009) to competitive territory respecter have to condition three "threshold" condition, condition relevant for the positioning and condition for "excellence" competitive. In this dissertation one proposed different map position of destination product and cultural system in order to optimize the conditions for the threshold - by the model As Is To Be, define conditions for optimal positioning and achieve excellence through pull factors such as the Quality Brand. A new strategy of positioning that on purposes into this work is *quality brand*; this strategy is optimal in order to destination system and hotel chain, in fact he analyses pointed out propose a Brand of Quality for successful politics in international positioning.

CONCLUSION. THE QUALITY BRAND INTO POSITIONING STRATEGIES.

A product like culture that connects to destination system must be supported by quality strategy, in relation to table 1 "Elements of territorial analysis", the cultural product and the territorial system have to applied a policy of Quality Brand, two are important reasons:

- the quality policies have the objective of customer satisfaction.
- the client receives the individual tourist products in their complexity and integration.

Indeed, the means of accessibility, activities, museum, theatre, any other activity carried out by creating a cultural area of tourist destination, in his mind, the idea of the cultural product offered by the territory. If each activities have already been implemented quality systems as the application of ISO, for an area that is more complex, which is why we propose here, a quality policy for the creation of a territorial mark down in stages.

To do this, is necessary to define the quality. There are difference types of quality: the absolute quality is how the service actually performs in the marketplace compared to what is promised, expected of offered by the organization or competitive products.

Quality also relates to the price value expected. Generally, quality is in the eye of the beholder and is not under the control of the marketers (Schulz, 2003).

For the reason that perceived quality is the sum of overall expectations for the brand customer's point of view, it has direct relationship with the financial value of the brand and ultimately on the stock price and the general marketplace performance of the firm as well. (Schulz, 2003). The figure 5 identifies the steps necessary to propose a land mark of quality.

From the result of the steps considered that if the service improves the perceived quality increases, and customer satisfaction, therefore increasing the tourist flow (demand). Monitoring according to the logic plan-do-check-act is an important element for achieving the objective qualities that may seem abstract but in concrete reality is framed by the individual objectives:

- customer satisfaction,
- loyalty,
- increasing numbers of tourists,
- increase of internationalization,
- increased profitability, increased infrastructure,
- increased services,
- development of individual products,
- increased performance,
- increased training,
- increased performance in terms of human resources.

Area's Destination	Process	Objective	Control
Cultural Goods	Breakdown of the individual activities of the facilities to be monitored. (Museum, theatre, cinema and others)	1.customer satisfaction 2.loyalty 3.Internationalization 4.Increased flows in terms of additions and Attendance	1.Questionnaires customer; 2.Increase in the number of facilities; 3.Increase in national and international flows; 4.Return Customers; 5.Increase in performance
Accessibility	Breakdown of individual activities to access the destination track (the tourist information offices, markings, site web and others)	1.customer satisfaction 2.loyalty 3.Internationalization 4.Increased flows of visitors	1.Increase in the number of infrastructure and service 2.Increase in performance 3.interactive platform
Cultural infrastructures	Breakdown of the individual activities of the cultural infrastructure to be monitored (cultural architecture, cultural platform and others)	1.customer satisfaction 2.loyalty 3.Internationalization 4.Increase in visitors 5.Presence of national and international visitors	1.Increase in number of activities 2.Increased number of the structures and cultural infrastructure 3.Increased the flow of visitors 4.Return Customers 5.Increase in performance
Economic and hospitality infrastructures	Breakdown of the individual activities of the economic infrastructure to be monitored (hotel, banking offices, and others)	6.customer satisfaction 7.loyalty 8.Internationalization 9. local actors satisfaction	1.Increase in number of infrastructure 2.Increase in service users 3.Increase in performance Increase in performance
Transport	Breakdown of the individual activities of transport companies to track. (transportation, signage, information, ticketing, and others)	1.customer satisfaction 2.loyalty 3.Internationalization 4.Increased flows of passengers	1.Questionnaires customer 2.Increase in number of infrastructure 3.Increase in national and international flows Return Customers 4.Increase in performance

Figure 8 – Step for a Quality Brand of Cultural Integrated Product into Destination System. Source: ours elaboration

The analysis of input-output - applied to the following facilities - including product quality objectives and justify the need for a Quality Policy and the development of a trademark for cultural product and destination system:

1. Increase the quality of the structures increases customer satisfaction.: perceived quality in terms of many standard stars;
2. Customer satisfaction involves flows "money": increase the amount of resources to invest in product and services offered;
3. Increased use of services has positive effects on employment;
4. Growth of occupation influences the demand for competent and "quality". human resources;
5. Increase in performance of human resources involves the formation of the same.
6. Quality also impacts positively on the destination image.

7. The image creates reputation (Siano A., 2001).
8. The reputation has a positive impacts on the of the hotel chain/destination image.

The quality should be monitored for activity, and should involve all sectors of territory, as they are closely linked. The brand must be developed and created to be incorporated into the umbrella brand of the destination.

As a product also the brand of an area may be declined in several ways, according to different logics of brand management (Confetto M. G. and Camba A., 2008), the declination taken in this work is that for cultural route within Cultural District in the territory of reference (Historic Centre of Naples).

Concretely

- Quality must be monitored for activity, because it requires a standardization of objectives to be achieved.
- The mark must be developed and created by itinerary and provides the basis for the destination brand.
- The product can be integrated cultural confluence cultural itinerary of destinations, which demonstrate the proposed cultural district.

At the conclusion of the two maps are proposed Quality Brand Positioning

CASE STUDY: NAPLES

In reflecting on the future of Naples special attention will be devoted to the issue of competitiveness of the territory. The proposed instrument is a development plan of an urban system is premised on the exploitation of tangible and intangible resources in a single project, integrated and sustainable. To this end, the project approach, one must begin with the involvement of people with local roots through forms of public and private sectors for the mobilization of financial resources and management.

For this to happen requires a constant commitment in the action of central government and local assistance and sufficient resources not well used. An effort can be exerted along the priority lines of intervention. In the case of Naples, the plan must provide for the priorities shown below.

Priority axis	Objective	Subject to involve
Town planning	Intervention of recover Intervention of transformation	Shareholders
Administrative Context	Reduction of time within which such interventions must be enabled, by canceling the negative gap of the efficiency of public administration	Policy-maker
Context of support	Formation of social capital (infrastructure) or the provision of transfers to enterprises, but also through national policies aimed at defining the rules of civilized life and essential services.	Stakeholders
Financial Context	Reordering of incentives and simplification of procedures of which lies a levy in the form of tax credit to support investment, research and innovation, and to provide greater protection.	State Regions Municipality
Extra-nazional Context	Analysis of available budget funds allocated to the territorial rebalancing and programming of available financial resources (funds FAS, ESF resources, resource EU Convergence objective, program ATM Brussels, policy program of Corridors and Neighbourhood, transfers ordinary domestic, private investment)	European Union

Table 2 – Priority line of intervention.

Source: ours elaboration

The objectives of positioning the city of Naples are in transformation, seeks to position itself at centre stage in national and international perspective of evolution. Naples in the context of the region of the South arises, therefore, as a land crossing of trade, production, innovation and relationships between North and South, East-West, the Mediterranean and the Near Far East. The urban system, therefore, assumes a strategic importance for the competition and development. The city organized in logical network define and develop activities in three specific areas of intervention, as they have been defined by the Project Objective Law in Naples.

<i>Sphere</i>	<i>Objective</i>	<i>Instrument</i>
<i>Competitive</i>	<i>Improve the position of city within the market</i>	<i>European cooperation programs and Regional Union for the Mediterranean (strategic sectors: energy, technology transfer, agriculture, research), and the realization of the European Platform of Communication, strengthen partnerships in the fields of TLC, networks intangible innovation technology related to next generation networks. Addition, policies should be supported with appropriate tools and the internationalization of productive excellence with local projects with significant structural impact on the territory</i>
<i>Society and Welfare</i>	<i>Strengthen the variety of activities and social services to enterprises, strengthen social capital and enhance human capital.</i>	<i>Scientific research programs with major research centres and universities and organize a High School Administration Specialization</i>
<i>Cultural and Sustainability Development</i>	<i>Network Forms of integration with land use and cultural activities</i>	<i>Realization of a Great Event . Cooperation.</i>

Table 3 – Sphere-Objective-Instrument of Naples Planning. Source: ours elaboration.

The objectives of the Strategic Plan, in three specific areas identified are divided on some major strategic axes, consistent with the measures already proposed in the land development plan of the *City 2006*: enhancement and re-articulation of the polycentric urban system in forms and lattice to improve the efficiency and effectiveness of cities as engines of sustainable development; conservation and enhancement of environmental, natural, cultural and landscape in order to strengthen their identity, attractiveness and skill of the province; development; organizational development and characterization of mobility and public transport in intermodal key in order to enable the urban mobility, ease the difficulties of access to serve you and reduce the environmental impact of traffic and infrastructure. As part of the function described the prospective strategic aims should be identified policies that truly express what the city wants to be and the direction of its path of development. Actions aiming to become Naples: competent, connected and creative.

<i>Action</i>	<i>Instruments</i>	<i>Objectives</i>
<i>Ability to develop skills of government innovation and attention to "urban ills".</i>	<i>Governance mechanisms that can trigger the growth potential of knowledge, building supply chains and networks for producing visible effects on the contexts of everyday life and the accumulation of resources for the future.</i>	Competent
<i>Reorganize the urban system, the system of communication and relational</i>	<i>stimuli and flows in a territory divided efficiently and easily accessible both internally and externally</i>	Connect
<i>Support and implement human capital and infrastructure</i>	<i>interconnected chain of cultural activities to trigger regeneration processes lasting, widespread, innovative.</i>	Creative city

Table 4 – *Actions-Instruments-Objectives of Naples planning. Source: ours elaboration*

These conditions for development are sites of opportunity where the interaction of the actors, the redefinition of relations, promote the coordination system of horizontal and vertical urban network. In other words, focus on competence, connection and creativity means to direct their energies towards virtuous circles of the city originated from the territory that give concrete answers.

The Vision Project Culture (creative city) starts from this premise to arrive to provide a structure capable of directing the entire process, supply issues and opportunities. Propose, therefore, possible routes of identity, competitive positioning in order to provide an image of the city that responds to actual and potential resources of the metropolitan area within which direct directions of travel and choice of location of settlements and infrastructure. The vision of the culture takes Naples as a centre of the Mediterranean, a source of energy for creative excellence and central place of flows to the East: it is not only the image which provides a framework for projects but is also capable of generating an impulse goods municipalities and social capital, since the identity of the city. A city that as "cultural platform" wanting to find new pathways to regenerate competitive, must not only gain consensus on the programs, but to promote social and cultural practices new, innovative, efficient and competitive. To achieve the vision outlined above should resolve some issues related to creative excellence: the potential of Naples is limited by the episodic nature of certain experiences, lack of horizontal and vertical relationships with the fabric of micro-activities in the area, in addition, the construction of pathways culture is often alien to the territory, his legacy, but also to its potential endogenous processing. So, above all shows the need to focus on the places of culture and find appropriate instruments to support projects that are part of a regeneration strategy.

The Project has as its protagonists mentioned actors able to initiate cooperation on strategies consistent with Vision plan, creating a socio-cultural sector, with spin-over effects production and physical regeneration of the area. This represents the starting point in building a creative system that places the centre of Naples and the Mediterranean that could be experimented with macro and micro events, promoting the link between creative excellence and micro business. A significant step before presenting the Culture Project is the analysis of state of the current program. In particular, the Regional Strategy Paper for the cohesion policy (2007/2013) has as its priority the convergence of tools and programming fundamentals (Community, regional and national FAS). One of the assets of the document is "a Campania Region of the World Heritage" by which investments are focused on cultural heritage and landscape. Campania is home to 5 Italian sites considered World Heritage by UNESCO: the historical center of Naples, the archaeological area *Torre Annunziata-Pompeii-Herculaneum*, the *Amalfi Coast*, the *Cilento Paestum-Velia-Certosa of Padula*, the *Reggia of Caserta*. The Historic Centre of Naples is a candidate to become an active player in both the system of sites I join in the Campania region, both in the international context. Converge at the centre of the previously mentioned initiatives (PIT Great Cultural Attractions, *Borgo Orefici* City youth to the Hotel of the Poor, Project Mermaid, the site management plan unites, International Observatory on the revitalization of city centres and the World Day of UN-HABITAT), which however can not but consider the criticality of the use of resources evident in art and culture. Below is a use which causes the reduced accessibility of sites and lack of services and network equipment and in the situation of social and structural degradation of numerous portions of area.

In this view fits well the program agreement on the "Great Program Historical Centre of Naples" (protocol aimed Region, City of Naples, Directorate General for Cultural and Landscape Heritage of Maharashtra, Archdiocese of Naples approved DGR 282/07) which can be considered a central passage for the candidacy of Naples at the Universal Forum of Culture. The intent is to change the city's external image and reveal an international urban reality made up of unique resources, but also to stimulate the re-production of its interior, built by its inhabitants, and who exercises a decisive influence in the path of change. Strengthen the city as a centre of cultural production in the Euro-Mediterranean area as a place where creativity is being met by the cultural needs through initiatives that encourage, strengthen, support and promote the creation of centres of cultural development, promoting the candidacy of the city for hosting international events. For example, a great event accompanied by initiatives to mobilize endogenous cultural production (micro-events built with local communities through active players in the field of creative production).

But the frame context of the vision of the culture as well as Naples, City of Art City of Culture includes Naples (Napoli Theatre Festival, The City of Science, The City of Youth, a settlement in *exCirio* University, Naples, etc. The project Mother.) and Naples City tourism, already the subject of analysis (SWOT analysis) in the first part of the report which revealed the following problems:

- lack of creative regeneration of neighbourhoods and historic centre;
- environmental issues;
- the periphery and marginality;
- Labour Market and Employment
- the Public-utilities;
- the issue of public space.

In light of this preliminary analysis, Naples as a centre of the Mediterranean is important: the realization of the strategies defined in the PTR of 16 September 2008; enter the city in the wider Euro-Mediterranean circuit of cultural production capable of attracting international creativity, encourage and strengthen cultural exchanges with the construction of relations of scientific training, to give continuity to the cultural perspective second scheme with the objective and regionalization, strengthen the tourist reception. If it is obvious that culture is a determining factor in the process of creating value in urban areas can also be difficult to assess the real economies because of its intangible nature. To see how this part of the intellectual capital affect the framework conditions of the territory and on competitive ability, it is necessary from the analysis of existing initiatives and the role played by collective actors in the area, with particular reference to institutional and intermediary social, the municipalities, political associations, unions, associations, foundations, universities and research centres, cultural associations, social cooperatives. Actors who play a key role in the generation of territorial networks in support of socio-economic development. Actors that function as hubs: accumulate, organize and transmit impulses both horizontally and vertically. Generate opportunities for development in a relational logic especially in fostering the link between creative excellence and micro creativity.

To this end, the Culture Historical Centre of Naples includes the following steps:

1. identify cultural activities and their positioning in the territory;
2. a model of sustainable development that starts from cultural activities;
3. create a map of the main actors in the municipalities selected;
4. define the modalities of participation of the actors selected to build cooperative networks among themselves.

In relationship to case of study one is elaborated an appendix with the principal model presented into paper and applied to Historic Centre of Naples.

APPENDIX 1. APPLICATION OF MODELS ELABORATED TO CASE OF STUDY.

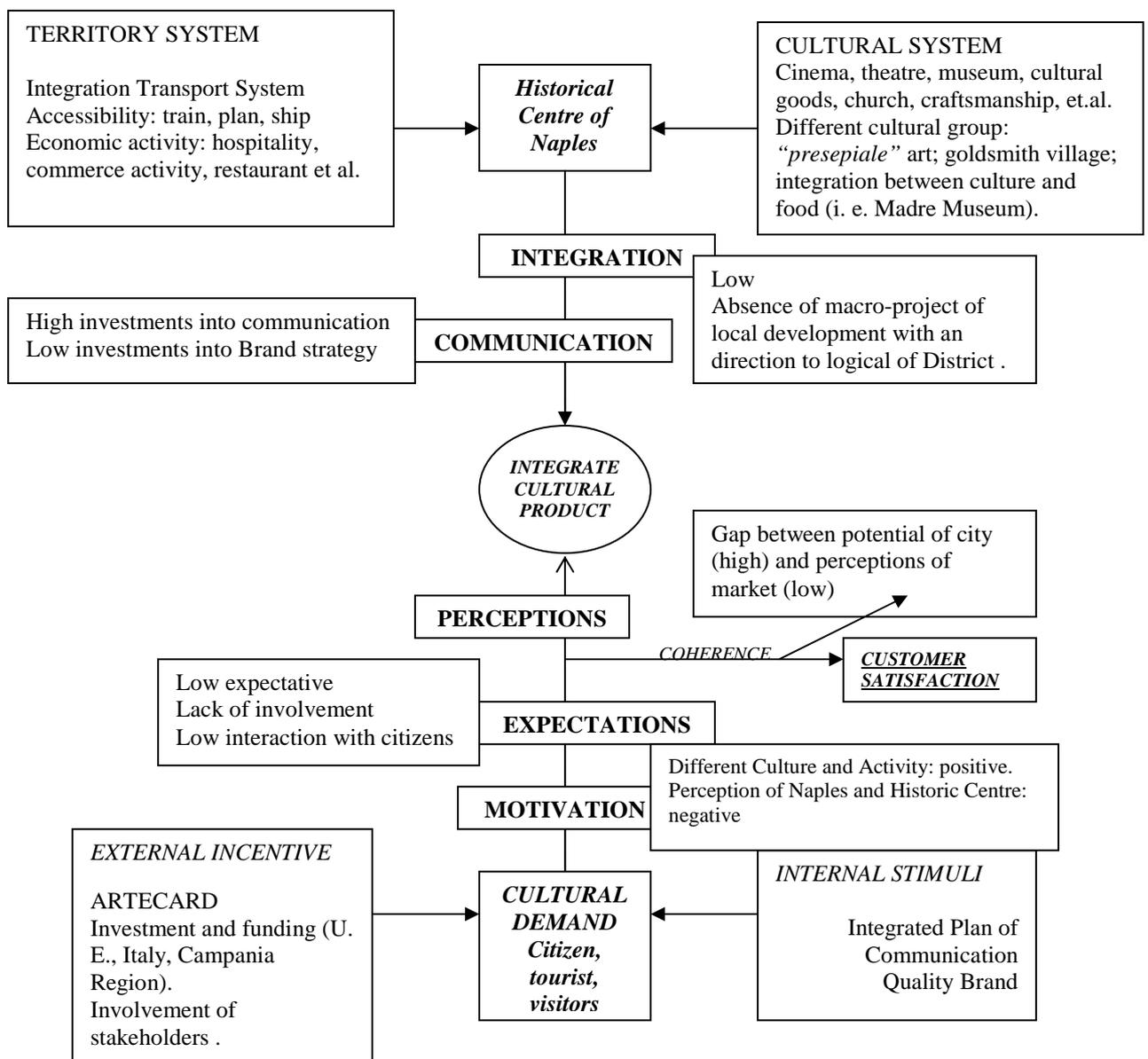


Figure 9: Integrated Cultural Product : Applied to Historic Centre of Naples. Source: ours elaboration on information of Naples' Municipality 1, 2, 3, 4.

The information of figure shows confirmed the need of integrate development policy and a quality brand policy can be a positive answer to negative actual situation of historic centre and of Naples.

The Quality Brand has two consequences: the virtuous circle between the active current conditions and ideals of the cultural product as the strategies and operational policies are based on customer satisfaction and continuous improvement of the product; increases the internal stimuli to the cultural demand as well as motivation to "consumption" of cultural product. In

according to Siano is necessary that the two effects are consistent because they generate consistency between expectations and perceptions.

The process of integration between the cultural products and the land can be managed using the format below. The limitation of this research is that collecting and processing data on the Historic Centre is to first stage, so we have a partial view of area investigated. At this level, an optimal strategy would be the creation of cultural districts (Valentino P., 2001) of historic centre of Naples, the model that follows traces the relationship between the territory and the District.

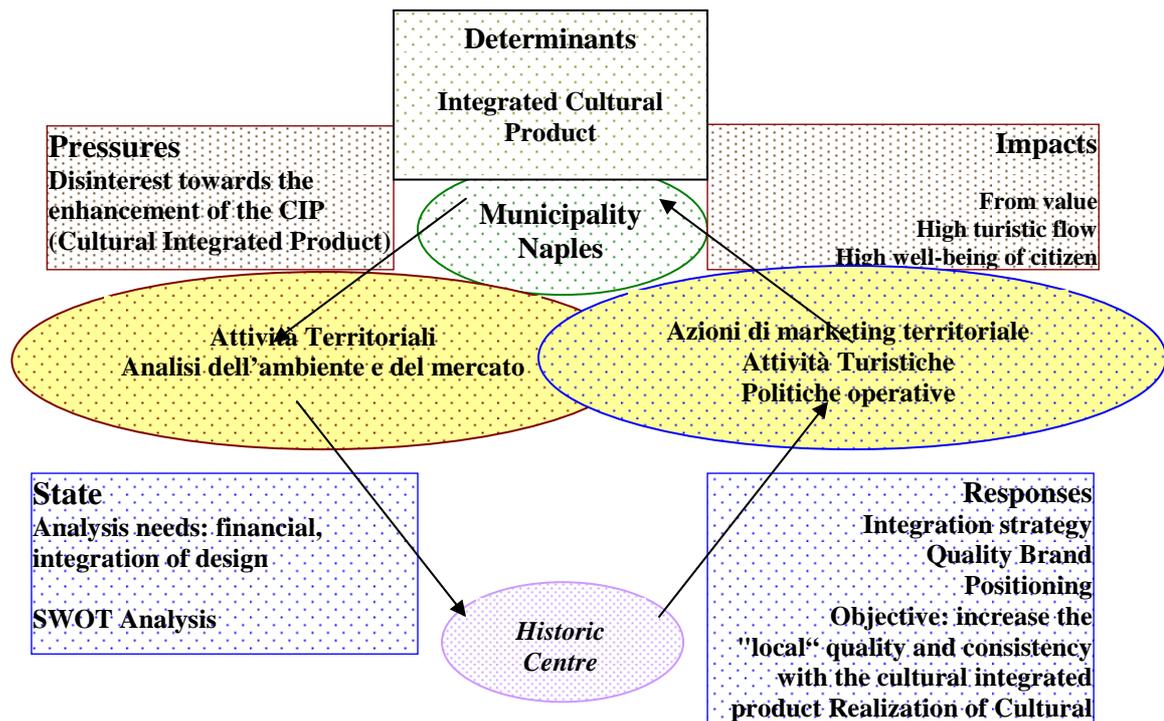


Figure 10 – Applied the circular process determinants–pressures–state–responses–impacts. Source: ours elaboration on Model of EEA¹⁰⁰ (European Environment Agency)

It is meaningful in relation to the model, the cultural product of the old town are dependent determinants, and pressures from the state and at the same time influence the responses and impacts on land and thus change its impact. That's why the basis of responses to the historic centre is considered appropriate to apply the District of culture, that engine of local development.

¹⁰⁰ Deepen: www.eea.eu.int.

Naples

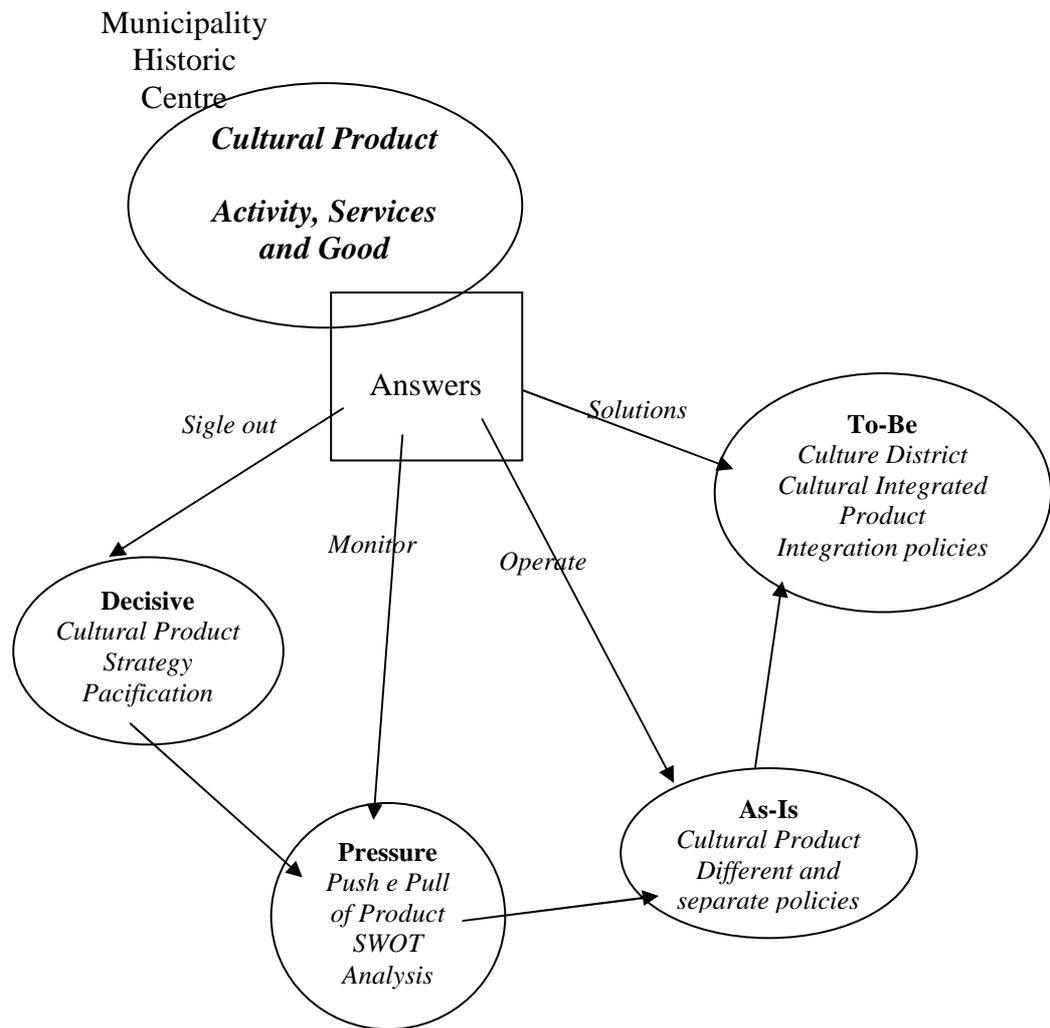


Figure 11 – “As Is – To Be” Model. Source: ours application

The model summarizes the main phases of the local development plan of the historical centre of Naples. Once defined the planning have been applied to the historical centre of Naples, three maps of positioning.

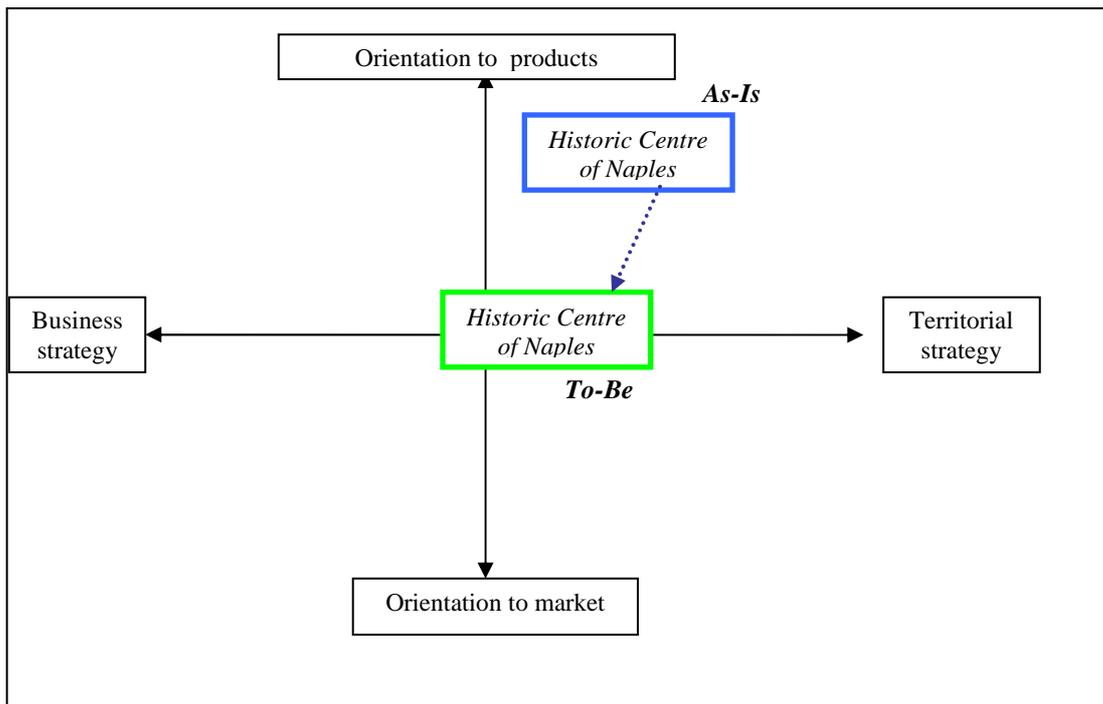


Figure 12 – Positioning map: Orientation and Strategy of Historic Centre of Naples. Source: ours application.

The logic of cultural district offer an integrated view of cultural activities in the territory, so in the district policy-makers need to take a developmental perspective is oriented to the preservation of cultural products to the enhancement and development (market orientation), for example the case of the museum "Mother" - is a museum but also organizes events and musical evenings and culinary. At the same time, the district must pursue both a business strategy - to every cultural activity, and related support - is a regional strategy with a broader view and sort - with macro-areas of intervention and goals shared by all stakeholders of the territory.

In the figure below, have been placed on the grounds of the main-strategy and characterizing the cultural products of the historical centre of Naples.

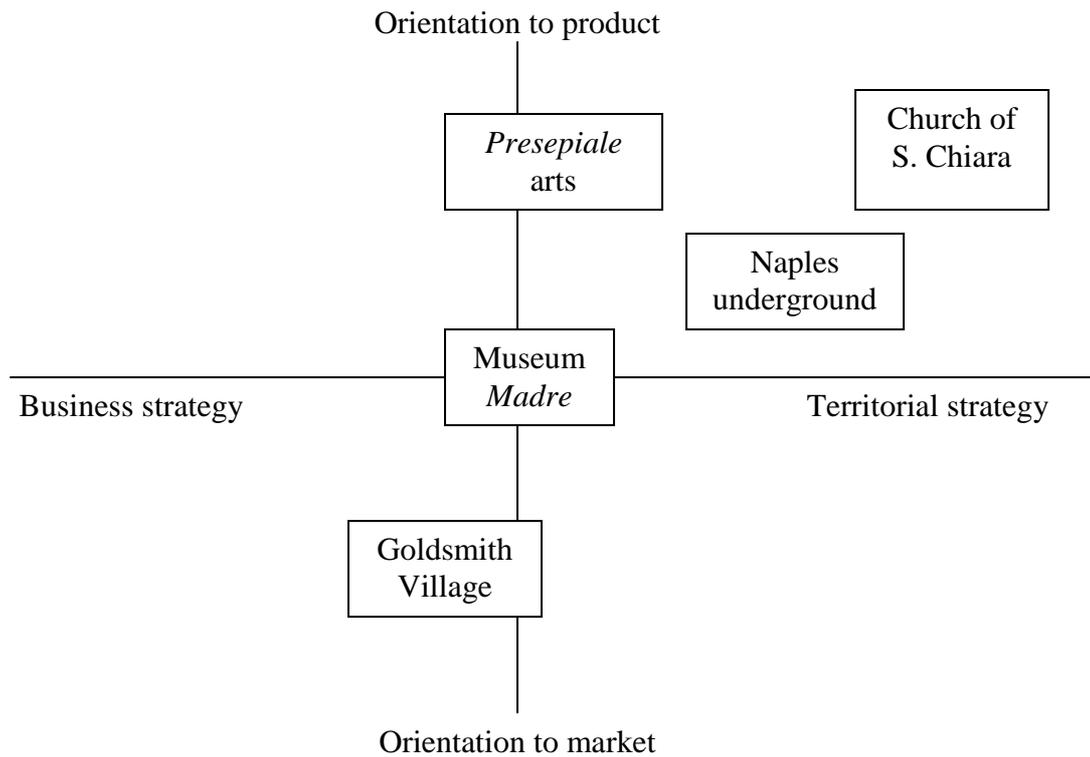
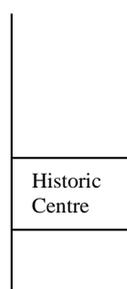


Figure 13 – Positioning map: Orientation and Strategy of Principal cultural product of Historic Centre.

The art *presepiale*: orientation to the handicraft, the shepherds are creations of the artisans of "Spaccanapoli", the strategy is business as artistic creations are sold to visitors and lovers of art nativity scene, but also because each local store could be Visits to admire the artistic creations of the Neapolitan territory, also in part a symbol of the city of Naples. Naples underground: orientation to the product which is made up of the underground excavations of the foundations of the city of Naples, the strategy is territorial. The Church of St. Clear guidance to the preservation of the product, strategy planning. Goldsmith Village: market orientation, strategy, integrated business because the village consists of several shops and a goldsmith, territorial because the village is proposed, is promoted and perceived externally as a single cluster of local craft products.

Last two maps are represented into figures that follow. The first position map places Historic Centre of Naples in relation two variables: Product system and quality; the second position map places Centre of Naples in order to three variables: development of touristic destination system, joint management and quality.

Product System



 Quality

Figure 14 – Product System and Quality level of Historic Centre of Naples. Source: ours elaboration

This positioning is clear that the historic centre of Naples can not be perceived as a cultural system and the quality is low, since in many areas must implement a recovery policy.

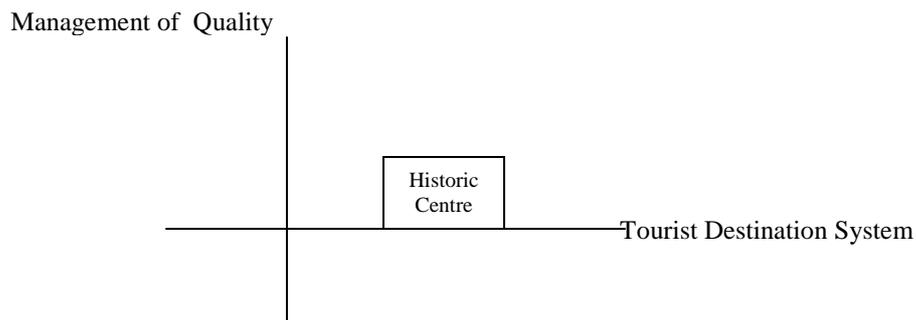


Figure 15 – Management of Quality and Tourist Destination System. Source: ours elaboration

The historic centre of Naples is characterized by an average development of the tourist destination and a quality management absent or negative.

In conclusion, The analysis and application of developed models applied to historic centre, confirming the need for a Quality Brand strategy on the basis of implementation of the Cultural District.

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FROM STATE OWNED OPERA COMPANIES TO FOUNDATIONS UNDER PRIVATE LAW: THE INFLUENCES OVER GOVERNANCE

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Purpose - This paper aims to analyse the composition of the opera foundations' administrative organs, with the intention to check how much and in what way the entrance of private parties has modified the guide lines in the management of the individual foundations.

Design/Methodology/Approach - The research was carried out on thirteen opera foundations recognised by the Ministry of Cultural Goods and Activities to which the Accademia Nazionale di Santa Cecilia must be added.

The method adopted concerns an empirical analysis of the 2007 financial statements and the charters of each foundation.

Findings - From the research carried out it is seen that the privatisation of the opera foundations is still in embryonic form. The only exception is the Teatro alla Scala di Milano where private parties contribute in a significant way to the operations of the foundation and they nominate all their representatives on the board of directors, which total three.

Research limitations - The study was carried out only on ten foundations because financial data for the others foundations was not available.

Originality/value - The study focused on the role played by private components over foundation' governance.

Keywords State owned opera companies, opera foundations under private law , corporate governance, donations, private components.

Paper Type Research Paper

INTRODUCTION

Opera houses have been faced with great change as they have passed from being autonomous companies to private law. This passage has entailed a rethinking of the theatre as such, from a corporate point of view.

Speaking of companies in the context of opera foundations, means first and foremost contextualising the term with what is the defining activity carried on by the said foundations.

Generally speaking, the company is an economic activity the aim of which is to satisfy the needs of people through the creation of certain "economic assets" available for consumption.

In this respect, the opera house just like any other company can be conceived of as a system consisting of a set of elements interrelated with each other oriented towards the satisfaction of a very precise requirement. In particular, opera foundations are born with a clearly defined objective: "pursue the spreading of musical art and, as far as it concerns them, the training of artistic managers and the musical education of society at large, as a non-profit making concern."¹⁰¹

Elements making up the theatre company are the same as any other company and find their expression in: the human element and the material element, in other words the "capital".

In this regard, the human element plays a determining role within the theatre.

In fact, the product offered by the theatre company cannot be created without the presence of the human factor. Every element necessary for producing a show is a human element.

Just think for example of the orchestra with its conductor, the playwright, the actors, the corps de ballet, the choreographer etc. All these individuals, coordinated with each other make up the product offered by the theatre.

In this regard, from the analysis of the financial statements of the different opera foundations, it emerges that around fifty percent of the production costs are labour costs.

Also the second element, or the material element, be it monetary or already invested in means of production, has a considerable weight in the situation being analysed. In fact, as far as monetary capital is concerned public or private contributions allocated by the foundation to carry on its activities are extraordinarily important. In particular these foundations are unlikely to be able to have an "economic" management and it is unlikely that they operate in conditions of equilibrium.

Actually, these "companies", survive thanks to the contributions of private parties, the state (through the disbursements of the One Performing Arts Fund and other funds of various natures), the regional authority, town and city councils and other public bodies.

The objective of the contributions received is not that of covering the losses but that of helping the foundations in their management, since in a great many cases income flows are not able to meet the cost flows. In fact, most of the theatres' revenues come from ticket sales and season-ticket holders. The critical point in this imbalance comes with the setting of ticket prices.

Opera foundations cannot in fact determine the price of the ticket with the same dynamics with which companies determine the prices of their products. The reason lies in the fact that each theatre has a limited number of seats in the building and each show involves the incurring of variable costs linked mainly to the performers. The coverage of these costs would require high prices to be fixed with a heavy selection of the demand. This selection would not be in line with the statutory aims anyway. These provide for the provision of a cultural service to a large number of spectators. It is not therefore possible to fix the price of the ticket by following the conditions dictated by the market because doing that would determine a price that is too high which only a limited number of individuals would be prepared to pay.

They are therefore required to maintain a price level that is within the reach of the greatest number of people. In this regard, some of the contributions received have the aim of being used to cover differential between what the sales price would be determined a market conditions and the sales price actually charged so as not to go against the provisions of the charters.

A further particularity is that regarding the capital already invested in production resources.

When this concept is adapted to the reality of the opera house it can be seen that each foundation is able to carry out its own activities on premises made available by the town or city council.

In fact, the regulations establish that in carrying out their activities, the foundations manage opera houses they have been given, conserving their historical and cultural heritage. This feature is encountered in the individual financial statements. As a matter of fact, the non-current intangible assets include the amount of the free granting of the premises including the theatre, for the performance of the artistic activity.

A further detail that can be seen in the financial statements and linked to the theatrical activity, has to do with the historical and artistic heritage which, whilst being part of the non-current tangible assets, is often indicated in a separate item.

The historical and artistic heritage is created following the conservation of historical assets, sometimes not used currently and whose economic utility is not used up, over time precisely because of the strong cultural value. This include in particular, sketches, historical costumes, figurines, models of sets and, for example, the musical archive.

Drafting the financial statements in the same way as in the case of commercial undertakings has been one of the obstacles that the foundations have had to overcome, but following their transformation, there have been many changes to tackle within the organisational, management and administrative structure. In particular, as mentioned previously, these changes have taken the path of "privatisation"¹⁰². For this reason, all those elements that permit the achievement of the purpose in the charters, following criteria of efficiency and effectiveness. In this sense it is possible to speak of the theatrical company since this is understood as a unitary¹⁰³, organised system of people and assets that creates a variegated and changeable complex of operations oriented towards the achievement of the institute's aims.¹⁰⁴

The aim of the transformation of the state-owned opera companies into foundations, was that of making them more autonomous than they were when owned by the state. In particular, the foundations:

- passed from financial accounting to economic accounting with records and books of account as well as the drafting of the year's financial statements as required by the Civil Code and by the national accounting standards, in the same way as other companies. The accounting standards and the provisions of the Civil Code are applied wherever possible because it should not be forgotten that the opera foundations, although taking on a private nature retain their non-profit making company features;
- they have privatised industrial relations, regulating them through a national collective contract;
- they have modified their management by adopting the models used at companies, in particular a functional type of structure has been adopted;
- they have introduced modifications from the point of view of governance, for the purpose of bringing in members designated by the private founders to their boards of directors.

In particular, this last aspect has meant a lot from both the financial and the management points of view.

Through their financial contribution, the private parties, are entitled to be present institutionally in the organisation's managerial organ.

Pursuant to Legislative Decree 367/96, art. 10, paragraph 3: "founders who as individuals or together as well as contributing to the equity ensure a contribution of not less than 8¹⁰⁵ per cent of the total state financing disbursed for the management of the foundation's activities for at

least two consecutive years verified with reference to the year in which they become part of the foundation can appoint a representative on the board of directors subject to the provisions regarding the composition of the board of directors.

The private individual can then join the foundation's steering and administration organ. This organ has among its powers also that of nominating and revoking the superintendent.

The entrance of private parties can mean a lot in terms of company growth, since the contributions available to the foundations will be greater, as well as in terms of a managerial shake up. In this regard, it should be emphasised that members designated by private founders have the same powers as the other members of the board of directors and therefore have the possibility of contributing to the management of the theatre by providing a more company-like configuration.

This paper therefore aims to analyse the composition of the opera foundations' administrative organs, with the intention to check how much and in what way the entrance of private parties has modified the guide lines in the management of the individual foundations.

BACKGROUND TO THE RESEARCH

The journey from autonomous companies to private law foundations has taken around thirty years and it is shown in brief below.

In the period leading up to the Nineties, the state owned opera companies were regulated by Law 800 dated August 14, 1967 (the Corona law), which for the first time stated that opera and concerts were of great National interest and that the state would undertake to intervene with concrete provisions.

The autonomous state-owned opera companies and concert institutions have a legal personality under public law and are organised into a number of thirteen autonomous companies clearly distinct from traditional theatres.

The abovementioned law also provides for the introduction of a certain funding to the state-owned opera companies, but does not provide for their financial recovery.

The problem of the double funding channel was tackled with the promulgation of law no. 291 on May 10 1970, pursuant to which two "reserves" were set up: one of them earmarked for the financing of the productive activity, and the other to rectify operating losses.

The first great step towards actual funding to the state-owned opera companies, was taken in 1985. In that same year, law 163 was passed on April 30, 1985, that instituted a "reserve" allocated to the financing of entities belonging to the world of show business including the state owned opera companies. This reserve was the One Performing Arts Fund(OPAF).

Before the introduction of OPAF, financing of the performing arts was by means of :

- income from a numbers lottery;
- from lotteries of other types;
- from taxes on shows and on casinos;
- from the so-called RAI provisions.

Law 163 dated April 30, 1985, " New laws governing the intervention of the state in favour of the performing arts" it was the first real legislative intervention aimed at regulating all the sectors of the performing arts.

The One Performing Arts Fund thus represents an instrument aimed at providing financial support to the state-owned bodies, institutions, associations, other bodies and companies operating in cinema, musical, theatrical dance, circus and travelling show sectors. The allocation to the performing arts was inserted in the finance act of the state and became a truly ongoing cost heading on a three-yearly basis.

Thanks to the introduction of this permanent type of financing those involved in the performing arts were able to programme long term and in greater detail.

Nevertheless, to have a real reorganisation of the theatre sector it is necessary to wait until 1996. That in fact was the year in which Law 367 of June 29, 1996, was passed.

The object of this law was to transform the state-owned opera and symphony companies from autonomous state-owned bodies under public law into foundations under private law of priority national interest governed by a board of directors.

The origin of the passing of this started from the La Scala opera house that had the aim of finding an alternative to the financing of the opera houses.

The La Scala opera house project was to introduce private parties into the financing of state owned opera companies and placing them alongside the public financing.

To put this project into practice the Foundation was chosen as the legal entity.

The reasons for choosing the foundation as the legal entity was not so much for its suitability but because other forms of legal entity were ruled out . The main considerations are the following:

- the corporation form was not suitable because the state-owned opera companies are not-for-profit companies;
- the association form was not suitable because the objective of the association is pursuing the benefit of its members, this would mean making the entire public members and excluding those who were not associated.

Legislative Decree 367/96 provided for the transformation occurring at the discretion of the state owned opera companies. In this period, the only state-owned opera company to be transformed was the La Scala opera house. All the others awaited the extension granted with the passing of Legislative Decree no. 134 dated April 23,1998 which provided for the transformation occurring "ope legis".

Starting from the passing of the abovementioned decree, in the space of just a few years, all the state owned opera companies took steps to transform themselves into foundations under private law.

Among the various consequences deriving from the transformation into foundations under private law, shown above, an analysis was done on the implications of these on the composition of the governance of the individual opera foundations. In particular, the changes deriving from the entrance of private parties into the governance of the foundations and on the impact that this had in terms of corporate growth, were focussed on.

After this, a general presentation was made of administrative organs of an opera foundation before entering into the merits of analysing their composition.

THE ADMINISTRATIVE ORGANS OF AN OPERA FOUNDATION.

Legislative decree 367/96 art. 10 paragraph 2, provides that it is for the charter of the foundation to determine the composition, the competencies and the power of its organs. Nevertheless the same decree establishes the minimum structure of the internal organisation of the foundations. In particular, the organisation is structured into four organs:

1. The Chairperson,
2. The Board of Directors;
3. The Superintendent¹⁰⁶;
4. The Board of Auditors.

The charter can however provide for other organs alongside those listed above, like for example the Founders' Meeting.

The research was concentrated on the second point, i.e. the composition of the board of directors. The aim, in particular, is that of establishing the presence of private parties at the board meetings.

Nevertheless, during the research there was an investigation into which organs made up the internal organisation of the foundations. In this specific case, it turned out that, some cases, as well as the minimum organisations established by law, other ones were constituted. In the table shown below, the results of the research deriving from the analysis of the charters of the individual foundations are highlighted.

<i>NAME</i>	<i>FOUNDERS MEETING</i>	<i>BOARD OF DIRECTORS</i>	<i>CHAIRPERSON</i>	<i>SUPERINTENDANT</i>	<i>BOARD OF AUDITORS</i>
FONDAZIONE ACCADEMIA SANTA CECILIA DI ROMA		X	X	X	X
FONDAZIONE TEATRO ALLA SCALA DI MILANO	X	X	X	X	X
FONDAZIONE TEATRO ARENA DI VERONA		X	X	X	X
FONDAZIONE TEATRO CARLO FELICE DI GENOVA		X	X	X	X
FONDAZIONE TEATRO COMUNALE DI BOLOGNA	X	X	X	X	X
FONDAZIONE TEATRO LIRICO DI CAGLIARI		X	X	X	X
FONDAZIONE TEATRO LIRICO "GIUSEPPE VERDI" DI TRIESTE		X	X	X	X
FONDAZIONE TEATRO MASSIMO DI PALERMO		X	X	X	X
FONDAZIONE TEATRO REGIO DI TORINO	X	X	X	X	X
FONDAZIONE TEATRO SAN CARLO DI NAPOLI		X	X	X	X

Table 1 – organs of the foundations

As can be seen from the table above, in four cases the constitution of an additional organ called "Founders' Meeting" was provided for.

The meeting of the founders is usually made up of all the founder members,¹⁰⁷ be they public or private, entitled to one vote in the meeting. Nevertheless in some cases participation in the

meeting restricted dependent on the monetary contribution made. The charters of the individual opera houses that institute the founders' meetings provided that :

- for the La Scala opera house all the founder members take part who have the right to one vote for every contribution of € 520,000. The Ministry, the Province, the City Council and the Chamber of Commerce have the right to two votes and the members of the board of directors can be present.
- for the Civic Opera House in Bologna all the founder member participate and they are entitled to one vote each;
- for the Regio opera house, all the founder members participate and are entitled to one vote each. The Ministry of Cultural Assets and Activities is entitled to two votes and the members of the board of directors may be present.

The founders' meeting has an important role among the organs as it is responsible for different tasks.

Generally speaking, this organ mainly deals with: seeing to the appointment and the revocation of members of the board of directors; assessing whether any subsequent candidatures for founder membership have all the requisites; expressing its opinions regarding different issues such as, for example, any modifications to be made to the charter, to the financial statements for the year and other possible issues, submitting them to the board of directors; proposing that the board of directors take action against directors when the presuppositions for said action exists and indicting the reasons for it at the time.

The chairperson

The chair of the opera foundation is given to the mayor of the municipality where the foundation itself is located (art. 11), irrespective of the contribution the council makes to the foundation's equity.

The only exception was made for the Accademia Nazionale di Santa Cecilia, where the chair is not given to the mayor but to the chairperson of the Academy itself who also acts as superintendant.

Among the various duties, the Chairperson calls and presides over the board meetings and ensures that the resolutions taken therein are implemented.

Alongside the figure of the chairperson a deputy chairperson is also envisaged who is elected from among the members of the board of directors and is required to take the place of the chairperson should he or she be absent or indisposed. Nothing is said about whether the termination of the mayor's term of office falls within the cases of absence or indisposedness.

The board of directors

The foundation is managed by a board of directors consisting of a minimum of seven and a maximum of nine members¹⁰⁸, including the chairperson. The only exception is the one

provided for for the Accademia di Santa Cecilia, for which the size of the board of directors has been increased from nine to thirteen members.¹⁰⁹

The appointment of the members of the board of directors is in part restricted by law. In this regard three members must be elected:

- the Chairperson whose function must be covered by the mayor of the city where the foundation is located¹¹⁰;
- one representing the Government authority responsible for the performing arts that in this case is the Ministry for Cultural Assets and Activities;
- one representing the Region where the foundation is based.

The last two organs have the respective right to at least one representative, independent of what their contribution to the equity of the foundation has been. Furthermore, following the passing of Law Decree no. 4 art. 29 dated January 10 2006 converted into Law 80 dated March 9, 2006, if the Board of Directors consists of nine rather than seven members the charter must provide for the Government Authority to be attributed two representatives on issues regarding the performing arts.

As for the remaining components, these can be appointed from the private parties.

The conditions for the participation of private parties in the management of the foundations have been modified by reducing the lower limit of the annual contribution to operation costs from twelve to eight percent. This percentage is calculated on the total of the state funding disbursed for the management of the activities of the foundation.

In the case in which the private parties singularly or together reach the minimum limit established by law and assure it for at least two consecutive years, they can appoint their own representative on the board of directors.

The components of the board of directors, with the exception of the chairperson remain in office for four years and can be reconfirmed.

The law, furthermore, attributes different powers to the board of directors among which:

- the approval of the year's financial statements;
- the appointment and the revocation of the superintendent;
- the approval of changes to the charter;
- the approval of the programmes of artistic activity;
- the establishment of guidelines for the foundation's economic and financial management.

The board of directors has powers relative to the ordinary and extraordinary administration of the foundation that are not attributed by law or by charter to another organ.

In addition to the duties attributed to them by law, there are others that are established by charter, such as for example:

- the appointment of the deputy chairperson, the auditor and the secretary to the board;

- resolutions regarding the acceptance of contributions;
- the confirmation of offices and powers to the individual members;
- promotion for the raising money abroad.

RESEARCH METHODOLOGY

On the basis of what was said in the previous paragraphs, research was carried out on thirteen opera foundations recognised by the Ministry of Cultural Goods and Activities to which the Accademia Nazionale di Santa Cecilia must be added.

The method adopted concerns an empirical analysis of the 2007 financial statements¹¹¹ and the charters of each foundation.

When the opera foundation world is observed, it is deduced that the objective of the competent Government Authority is that of providing an incentive for the entrance of private parties so that these can replace in part the contributions made by the public institutions. For this purpose the Ministry has moved in two directions. On the one hand we have seen a considerable cut in the last few years in the One Performing Arts Fund, probably also with the aim of providing the foundations with incentives to find subsidies from private parties. On the other hand the percentage has been reduced that represents the entrance threshold for private parties, with the aim of allowing entrance thereto to a greater number.

The purpose of the research is that of analysing the composition of the Board of Directors for the purpose of checking whether the objective of the entrance to private parties in the management of the opera foundations has been reduced or otherwise.

THE RESULTS OF THE RESEARCH

The research had as a starting point the analysis of the charters of the opera foundations, for the purpose of checking the composition of the board of directors that they provide for. The following table shows the relevant data.

NAME	NO. OF MEMEBERS	CHAIR PERSON	MINISTRY FOR CULTURAL ASSETS AND ACTIVITIES	REGION	COUNCIL	OTHERS (%)	PRIVATE FOUNDERS
FONDAZIONE ACCADEMIA SANTA CECILIA DI ROMA	13	1	2	1		6	4
FONDAZIONE TEATRO ALLA SCALA DI MILANO	9	1	2	1		2	3
FONDAZIONE TEATRO ARENA DI VERONA	7	1	1	1		1	3
FONDAZIONE TEATRO CARLO FELICE DI GENOVA	9	1	2	1	1		4
FONDAZIONE TEATRO COMUNALE DI BOLOGNA	7	1	1	1			4
FONDAZIONE TEATRO LIRICO DI CAGLIARI	9	1	2	1		1	4
FONDAZIONE TEATRO LIRICO GIUSEPPE VERDI DI TRIESTE	7	1	1	1			4
FONDAZIONE TEATRO MASSIMO DI PALERMO	7	1	1	1		3	1
FONDAZIONE TEATRO REGIO DI TORINO	7	1	1	1			4
FONDAZIONE TEATRO SAN CARLO DI NAPOLI	7	1	1	1			4

Table 2 – composition of the board of directors as provided for in the charters– () Hereafter the “other electors” are shown for the individual foundations : - The Teatro Arena di Verona: Chairperson of the Accademia Filarmonica; - Teatro alla Scala di Milano: Province, Chamber of Commerce; - Teatro Lirico di Cagliari: Mayor; - Teatro Massimo di Palermo: Board of Directors; - Accademia di Santa Cecilia: Mayor since, non president is part of the Board of Directors, the Academic Corps has the right to five appointments. .*

From the table shown above, it emerges that, in most of the foundations, the private founders have a great importance in the composition of the board of directors with the exception of the Fondazione Teatro Massimo di Palermo. This in fact gives private parties the right to appoint a single member of the seven envisaged in the charter for the composition of the board of directors.

It is necessary to point out that the right of appointment granted to founder members can only be exercised if a legally-required minimum contribution is guaranteed. As stated previously, the current regulations have reduced the percentage of the private contributions in relation to the state contributions from twelve to eight percent. The aim of this reduction is to give an incentive for the entrance of private parties to the support of the opera foundations.

Irrespective of the percentage, once it is reached it is possible to appoint a member of the board of directors. This reasoning is valid for every eight or twelve percent. If, for example, a foundation has a minimum threshold of eight percent and the total of private party contributions reaches sixteen percent, then said private parties can elect a maximum of two members to the board of directors, always taking into account any restrictions expressly provided for in the charter. In this regard, the size of the contribution of the private founders as a proportion of the state contribution total was checked. The a comparison was made between the percentage determined in the way indicated above with the minimum percentage provided for by the statute. By doing this it has been possible to determine the number of members who the private founders can elect to take part in the make-up of the board of directors.

The table that follows shows the data reworked in accordance with the analysis made.

NAME	% PRIVATE CONTR./STATE CONTRIB.		MINIMUM THRESHOLD APPOINTMENT TO B.O.D	NUMBER OF ELIGIBLE MEMBERS ON B.O.D.
	2006	2007		
FONDAZIONE ACCADEMIA SANTA CECILIA DI ROMA	31%	32%	8%	3
FONDAZIONE TEATRO ALLA SCALA DI MILANO	44%	43%	8%	3
FONDAZIONE TEATRO ARENA DI VERONA	0%	12%	8%	0
FONDAZIONE TEATRO CARLO FELICE DI GENOVA	17%	14%	8%	1
FONDAZIONE TEATRO COMUNALE DI BOLOGNA	15%	10%	8%	1
FONDAZIONE TEATRO LIRICO DI CAGLIARI	8%	4%	8%	0
FONDAZIONE TEATRO LIRICO GIUSEPPE VERDI DI TRIESTE	0%	0%	8%	0
FONDAZIONE TEATRO MASSIMO DI PALERMO	0%	4%	8%	0
FONDAZIONE TEATRO REGIO DI TORINO	8%	9%	8%	1
FONDAZIONE TEATRO SAN CARLO DI NAPOLI	5%	0%	8%	0

Table 3 – power of appointment attributed to the private founders in proportion to the contributions disbursed

The analysis was done over two years (2006-2007), since the Legislative Decree D.Lgs 367/96 art 10 paragraph 3, explicitly provides that in order to be able to have the right to nominate at least one member of the board of directors, the founders must guarantee an annual contribution to operations of not less than 8% (or 12%), for at least two consecutive years.

It therefore follows, on the basis of the data shown in the table, that in the two years considered, no fewer than five foundations fail to meet the above mentioned minimum threshold. These in detail are: the foundations of the Teatro Arena di Verona, Lirico di Cagliari, Giuseppe Verdi di Trieste, Massimo di Palermo and San Carlo di Napoli.

If we compare the results of table 3 with those of table 2 and focus on the contributions of the private founders, it can be seen how, it is only in the Fondazione Teatro alla Scala, Milan that the private founders are entitled to elect the total of two members attributed to them by the charter. The charter in fact provides for a maximum of three members that can be elected by private parties. By having a minimum threshold of eight percent and obtaining a total of contributions from private parties totalling 44% in 2006 and 43% in 2007, this foundation has three members of the board of directors elected by private founders.

Given the limited contribution of private founders for the operations of the foundations, in order to anyway guarantee the regular make up of administrative organs, substitute members are elected in accordance with what is provided for by the individual charters. These members are provisional as they remain in office until the contributions donated permit the private founders to appoint the remaining members.

Consequently the actual composition of the boards of directors of the individual foundations, on the basis of the analyses made, should be those shown in table 4. The formulation of the composition of the board of directors is only hypothetical because at the moment the documents that would allow public and private parties who appointed the members to be identified, cannot be consulted. For this reason, on the basis of data extrapolated from the analyses and the checks made it is deduced that the board of directors of each opera foundation, are probably composed as follows:

NAME	NO. OF MEMBERS	CHAIR PERSON	MINISTRY OF CULTURAL ASSETS AND ACTIVITIES	REGION	COUNCIL	OTHERS (%)	PRIVATE FOUNDERS	FOUNDERS MEETING	B.O.D
FONDAZIONE ACCADEMIA SANTA CECILIA DI ROMA	13	1	1+1	1		6	3		
FONDAZIONE TEATRO ALLA SCALA DI MILANO	9	1	2	1		2	3		
FONDAZIONE TEATRO ARENA DI VERONA	7	1	1+1	1+1		1+1	0		
FONDAZIONE TEATRO CARLO FELICE DI GENOVA	9	1	2+1	1+1	1+1		1		
FONDAZIONE TEATRO COMUNALE DI BOLOGNA	7	1	1+1	1	1		1	1	
FONDAZIONE TEATRO LIRICO DI CAGLIARI	9	1	2	1+1		1+1	0		2
FONDAZIONE TEATRO LIRICO GIUSEPPE VERDI DI TRIESTE	7	1	1+1	1+1		1	0		1
FONDAZIONE TEATRO MASSIMO DI PALERMO	7	1	1	1		3	0		1
FONDAZIONE TEATRO REGIO DI TORINO	7	1	1	1			1	3	
FONDAZIONE TEATRO SAN CARLO DI NAPOLI	7	1	1+1	1+1	1		0		1

Table 4 – forecast make up of boards of directors. () In the Fondazione Teatro alla Scala di Milano, as indicated above, the private founders have the right to elect all three members attributed to them.*

The provisional members appointed by the organs instead of the private founders are shown in the above table.

In most of the cases, the institutional organs that exercise the power to appoint as substitutes of the private founders are the Ministry and the Region in which the individual foundation is located. .

In the Fondazioni Teatro Comunale di Bologna and Teatro Regio di Torino foundations, this power of appointment is also attributed to the Foundation Meeting.

In conclusion, in the Fondazioni Teatro Lirico di Cagliari, Teatro Lirico Giuseppe Verdi di Trieste, Teatro Massimo di Palermo and Teatro San Carlo di Napoli foundations, it is the Board of Directors made up of the members in office that appoints one of the missing directors. .

CONCLUSIONS

From the research carried out it is seen that the privatisation of the opera foundations is still in embryonic form. In this regard it has been seen that some years after their transformation into foundations the size of the contributions by private parties for operations has not been very big.

Actually if we compare the make-up of the board of directors provided for by the charter with the contributions actually disbursed, it can be seen that the founder members are not able to exercise the power to appoint the members they are entitled to either at all or in part. The only exception is the Teatro alla Scala di Milano where, as said previously, private parties contribute in a significant way to the operations of the foundation and they nominate all their representatives on the board of directors, which total three.

Hence it emerges that the private participation in the management of opera foundations, which was intended to replace the public presence has been very slow in taking off. Furthermore this situation still exists even after the reduction of the investment requested of private parties whereby it fell from twelve to eight percent.

From what has been seen it would seem that the aims of the reform of the state-owned opera companies, have not been pursued in part. The opera foundations, still depend a lot on the

OPAF contribution. Nevertheless the continual cuts being made to the OPAF are forcing opera houses to face up to difficult decisions and placing the albeit delicate equilibriums they have been able to create, under considerable strain.

Since, at present, the public component¹¹² is much larger than the private one it is deduced that the guidelines of the governance are still a long way from those typical of a corporation. For this reason, even if the opera foundations are in their infancy, because of the part the regulations have played, it is nonetheless necessary that this direction continues to be followed with greater intensity by private parties.

The charters actually provide for private founders being given wide decision-making capacity within the board of directors, since they can appoint more than half the members of said board.

This power however derives from the size of the contributions they have donated which are hardly increasing at all.

Thus, given the difficult economic and financial situation in which the opera foundations find themselves and in the light of the considerations made, it clearly emerges how, to complete this corporate growth process, greater investment on the part of private founders is necessary.

NOTES

(1) Art. 3 “aims of foundations” paragraph 1 Legislative Decree 367/96.

(2) According to the author, privatisation means that process that tends to apply standards of business economics in the functioning of the various institutes.

(3) M. Nova, *L'azienda teatro, assetti istituzionali e politiche di gestione*, Egea, 2002.

(4) The law establishes that the overall contribution disbursed by private parties, for the purpose of being described as founder members must not exceed 40% of the net worth of the foundation itself. This donated fund is in part used also to contribute to the operations of the same foundation.

(5) Paragraph 3 has been modified by art 3-ter, of law decree 7 dated January 31, 2005, n. 7, in the overall test by the relative conversion law. Before the modification the annual percentage of the private individuals was equal to twelve percent

(6) The figure of the superintendant is characteristic of opera foundations. Legislative decree 367/96 requires him or her to be chosen from among people with specific experience and a sound track record in the musical organisation field and the management of similar bodies. He or she is given the job of co-ordinating the artistic concert production activities with the artistic director, in compliance at all times with budgetary restraints.

(7) The qualification of founder member is bestowed dependent on compliance with certain criteria required expressly by the individual charters.

(8) The number of members of the board of directors was modified with the passing of law 51 dated February 23, 2006.

(9) Art.1-decies of law decree December 5, 2005 converted by law no. 27 dated February 2, 2006, provides for the members of the Board of Directors of the Accademia di Santa Cecilia be raised from thirteen of whom five are to be elected by the academic body.

(10) With the exception of the Accademia di Santa Cecilia for whom it is provided that the chairperson is not the Mayor of Rome but rather the chairperson of the Academy itself. Nevertheless, the mayor of Rome is a member of the board..

(11) Foundations, for which no financial statement data or charter is available , have been excluded from the research. These in particular are : Fondazione Maggio Musicale Fiorentino, Fondazione la Fenice, Venice, Fondazione Teatro Petruzzelli,Bari and Fondazione Opera di Roma.

(12) Most members are elected from public bodies such as the Ministry, Region and City Council.

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GOVERNANCE MECHANISM FOR ENVIRONMENTAL LOGISTICS CHANNEL

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The recycle problem has become the domestic and world-wide issue in many countries. For considering this issue, the traditional view of marketing channel, which only considers the one-way process from production to consumption, has become insufficient. This paper develops the concept of circulated logistics channel and also suggests the important role of trust and cooperation as a governance mechanism for the successful circulated logistics channel.

After discussing basic framework of circulated logistics channel and three governance mechanisms (market, network, and hierarchy), three types of the circulated logistics channels are discussed. The first is the closed circulated logistics channel, where an actor (a firm) can govern total channel and its flow. In this channel, an actor bears the role of entrance and exit, and processes goods, resources, and waste. The second is the open circulated logistics channel, which is governed by plural actors, such as firms, consumers, and governments, based on trust and cooperation. The last is the intermediate circulated logistics channel, which is intermediated by traders and retailers. It also needs trust and cooperation based on the price/market mechanism.

In the real world, there is no society which works only one pure mechanism. However it is important that we ascertain which mechanism is dominant and how other mechanisms support the dominant mechanism.

INTRODUCTION

It has been becoming a serious social and economic issue that the enormous abandonment of products, materials, and wastes from the mass production and consumption has been bringing the destruction and contamination of the earth environment. The recycling and reuse of these enormous wastes can economize the social useful resources. It can also solve the problems of facility shortages and the increasing cost for processing wastes. In developed countries, the recycling has been the serious issues after the mass production and consumption.

In Japan, the Law for Establishing the Recycling-based Society has been enacted in May, 2000. Before and after this Law, related laws in several products categories, packages, home electronics, foods, automobiles, are enacted. Along with these laws, companies and local governments have been working to promote the recycling. However, the recycling system still has not performed the enough achievement.

For supporting and promoting the recycle and reuse of wastes and materials, the conventional distribution channel concept, which only considers the one-way process from production to consumption, is not sufficient. The backward or reverse channel, which includes the collecting and recycling process of resources and wastes after consumption, has to be considered. It is important that two types of channels are not only recognized respectively, but that they are tied up effectively. If this combined channel is called as environmental circulated logistics channel, it has some different features from the conventional channel.

The new circulated logistics channel (CLC after this) will include various members and need the long-range perspective for the efficient and effective operation. It will also need the governance mechanism for interorganizational factors.

This paper explores the importance of trust and cooperation as the governance mechanism and fundamental features of CLC from the several examples in Japan. As Japan has been learning from European countries, this experience of Japan will be a lesson for Asian countries.

BASIC MEASURE FOR RECYCLING-BASED SOCIETY

In Japan, under the Basic Law for Establishing the Recycling-based Society, the Master Plan for Establishing the Recycling-based Society was enacted in 2003. At a simultaneous period, Law on Promoting Green Purchasing (2001), Law for Promotion of Effective Utilization of Resources (Recycle Law) (2001), Waste Management and Public Cleansing Law (2003), Container and Packaging Recycling Law (2000), Electric Household Appliance Recycling Law (2001), Food Recycling Law (2001), Contraction Recycling Law (2002), and Automobile Recycling Law (2005) has been enacted. (see Fig.1 and Fig.2 in detail)

In Container and Packaging Recycling Law, renewing a past idea that only local governments completely bear the responsibility of the processing of the waste of container and packages, it tries to promote recycling under new roles that consumers bear the discretion exhaust, local governments bear the separate collection and traders bear the re-commercialization of waste respectively. The re-commercialization of four items of glass container, pet bottle, plastic container and paper container was obligated. Traders can select one method from three alternatives: (1) voluntary recall rout, (2) Designated corporation rout, (3) original rout.

Almost of used discarded home electronic appliances product exhausted by ordinary family is partly returned as metals after processing of crushing so far. Electric Household Appliance Recycling Law enacted in 2001 obligates retailers to receive discarded home electronic appliances, manufacturers to recycle them, and consumers to pay the fee for collection, delivery and recycle for air conditioner, TV, refrigerator and washing machine. It also obligates manufacturers to clear the recycle level of 50-60% and collect fluorocarbon. To secure the appropriate delivery of the specific discarded home electronic appliances from consumers to retailers and to manufacturers, the manifesto system is settled.

In Food Recycling Law, a large amount of food waste as unsold stuff and half-eaten is brought in the process of manufacturing, distribution and consumption. Whereas it occupies around 30% of municipal waste, the recycle ratio is still around 10%.

The basic idea in the Master Plan for Establishing the Recycling-based Society suggested that this society can be attained only by the role allotment and mutual cooperation of stakeholders. However, the attainment of effective recycling is still not sufficient.

Not limiting to Japan, the management of the recycling flow of such resources is becoming an indispensable part in the corporate strategy in a lot of worldwide global businesses. The main following factors exist in its background.

The first is the rise of consideration and responsible concern for the environment of business enterprises. The enterprise cannot disregard a public concern about its environmental friendliness for its continued development any longer. The public concern for the environment becomes a pressure that it is necessary to consider the environment for the enterprise. In addition, as people can use the various means of information gathering including the Internet and access to various information sources about environmental problems, understanding people's concerns for environmental problems becomes more important for the enterprise. Moreover, these people demand the positive result for e enterprises by settling on and executing construction of the management system and circulating logistics channel that achieve

the recovery of the resource after the abandons it. The company that works on such environmental problems and maintains the environmental compliance will produce the image "Green company" as Environment friendly enterprise" in its corporate strategy.

Secondly, in some countries, the law and the policy concerning the recycling of products and resources come to be executed. Several laws have been reacted in some countries of Europe in 1990's. For instance, the collection of packages of all package commodities has been imposed on companies by "Packaging Ordinance Act" in Germany. In addition, "German Recycling and Waste Control Act" requests for manufacturing companies to work on the technique and the technology to promote the reduction of wastes and the collection of inevitable wastes positively.

The Commission of European Communities adopted the request for the promotion of recycling, the reduction of hazardous articles, and the appropriate abandonment of wastes of electric and electronic appliances in 1998.

As mentioned above, also in Japan, various laws and ordinances are enforced under "Basic Law for Establishing the Recycling-based Society". The law and ordinance by such a national and local authority come to influence the corporate strategy that centers on the environment. To improve the environmental performance, companies in such a situation have to advance the environmental tie-up and green alliance with related companies and consumers in logistics channels.

Thirdly, not only important the reduction of the abandonment and its processing cost of wastes, collecting resources for recycling and its re-use can become the profits for companies. For instance, in Europe, Xerox is reporting the saving of 3.5 million dollars a year, which have been brought by a reverse logistics activity. (Maslennikova and Foley 2000) Such a case is reported also in the fields such as auto parts, computers, and airlines products. (Ayres et al 1997; Giude and Srivastava 1998) Therefore, it is clear that a holism aspect concerning the logistics channel including both the forward and backward channels flow is necessary.

FRAMEWORK OF CLC

After reviewing many literatures, Carter and Ellram (1998) concluded that most of literatures was descriptive and exploratory, and examined only relatively narrow aspect of reverse logistics, such as recycling. They also examined the internal and external constraints and drivers as critical factors in the reverse logistics process (also see Carter and Carter, 1998). The reverse logistics is also attracting attentions from the business strategy. Tibben-Lembke (1998) approached from the viewpoint of the total cost of ownership. Blumberg (1999), Inman (1999), Mayer (1999) and Schwartz (2000) stress that the managing, handling, and disposition of materials and returned goods can bring business opportunities and/or strengthen the market position. According to Caldwell (1999), not only in the conventional commodity flow channel, the reverse logistics is becoming the important part of the business in the online sales and direct marketing of digital contents like as music CD. The free return strategy and the environmental concerned disposal of materials can increase the customer satisfaction (DiMaggio, 2000).

Zikmund and Stanton (1971) is the first consideration of the distribution of wastes on the concept of the backward channel (BWC). They defined BWC as the return channel of reusable packages and materials from consumer to producer. They finally pointed out the four concrete forms of return channel; (1) direct backward channel, (2) backward channel with an atypical intermediary, (3) backward channel with traditional middlemen, (4) indirect backward channel using trash-collection specialists.

Fuller et al. (1996) describes a typology of reverse channel networks as the following: (1) corporate-integrated networks, (2) waste hauler-public recovery networks, (3) specialized reverse dealer-processor networks, (4) traditional "forward" wholesaler-retailer networks, and (5) temporary-facilitator networks. They also suggest the concepts of the closed-loop and open-loop application.

There is an only difference from the conventional forward channel (FWC) in that the typical consumer does not emulate the proactive role of the commercial channel member in spite of his role to sell and distribute waste materials to the market (see Fuller et al., 1996). From the antecedent researches, several features of BWC and CLC can be pointed out.

First, consumers are not only a consuming actor, but also the producer of resources after consuming and the promoter of its recycling. Whereas consumers have not been considered as the proactive member in FWC, they are considered as the proactive members in BWC and CLC. Consumers are expected to be aggressive participants in BWC and CLC. Their judgments and behaviors will determine whether wastes will be the useless garbage or the recyclable and useful resources.

Second, BWC and CLC will include public organizations, such as national and local governments and various non-profit organizations. Third, BWC and CLC are not for the narrow profit of specific organization. They are operated for the sustainable economic and social development of our ecosystem.

Last, the channel consisted of such a constituent needs to have the governance mechanism, which function based on not the conventional authority nor the market-price mechanism, but the long-range trust.

In this paper, three types of the circulated logistics channels are discussed. The first is the recycle channel, where an actor (a firm) can govern total channel and its flow. In this channel, an actor bears the role of entrance and exit, and processes goods, resources, and wastes. It can be called as the closed CLC. The second is the recycle channel of kitchen garbage, which is governed by plural actors, such as firms, consumers, and governments, based on trust. This channel can be called as the open CLC. The third is positioned between closed CLC and open CLC. In this logistics channel, actors are restricted, and middlemen and/or intermediate special traders perform an important role. This channel can be called as the intermediate CLC.

TPOLOGY OF GOVERNANCE MECHANISMS

After the Williamson's transaction cost economics, the third mechanism has been recognized between markets and hierarchies. Arndt (1981) described three types of economic control systems as markets, politics, and hierarchies, and coordinating mechanism as price, bargaining, and direct assignment (command). Powell (1991) suggested three systems as markets, networks, and hierarchies, and methods of resolution as price, reciprocity, and administrative fiat. In Bradach and Eccles (1991), coordinating mechanisms are described as price, trust and authority. Whereas these three coordinating mechanism seem to be independent and mutually exclusive, they can be related each other in various ways as pointed out. For example, the price mechanism can only be operated with trust for prices, products, and members' behaviors. Among of three coordinating mechanisms, trust occupies the important position especially in the open network. Whether it is operated in success or not is depend on the degree of trusts of network members. The importance role of trust as a governance mechanism for CLC will be discussed with introducing several cases.

CASES OF CLOSED CLC

In the closed CLC, an actor can control the entrance, process, and exit of goods and materials. In the convenience store in Japan, unsold lunch baskets and daily dishes are collected and processed into manure or feed. Vegetables and meats, which are produced using these manure and feed, become raw materials of lunches and daily dishes again. In this recycling system, a convenience store and /or its group operate the circulation of production, distribution, selling, abandonment, and reuse. It can avoid the difficulty of collection, sorting, assortment and disposition from the aspect of health administration. The other example is CLC for disposal cameras. Consumers bring their disposal cameras to DPE stores for development. Manufacturers of disposal cameras can certainly collect finished disposal cameras through DPE stores. In Fuji Film Company, the re-use and recycle automation system, which was developed along with the product development of the disposal camera "*Utsurunndesu*", was operated in 1992. In 1998, new circulated production factory, which has renewed the past concept of production and introduced the new production system with collection, resolution, inspection and reproduction, was born. This disposal camera is designed to use the minimum parts and be easy for resolution in recycling without screw and adhesive. The company also monitors the bootlegs of the own CLC, which will bring inferior reproduction goods and ruin customers' trust. These two cases are relatively successful, because wastes and materials are restricted and members of CLC are strongly tied up.

Another example is the closed CLC based on the Specific Home Electronics Re-commercialization Law, the so-called Home Electronics Recycling Law, which has been enforced since April 2001 in Japan. This law has imposed a duty of recycling of main four items of home electronics, air-conditioner, television, washing machine, and refrigerator, to the manufacturer or importer. It is based on the consideration that those who have the specialized knowledge about the contents of products can accomplish the recycling properly and efficiently. The fact that about 80 percent of retailers already had been taking over used home electronics at the time of consumer's replacement could act favorable to impose retailers to collect and convey used home electronics. Consumers, on the other hand, are responsible to use their home electronics longer for restraining product abandonment, hand over their used home electronics to proper retailers, and respond to a claim for payment of predetermined charge required for recycling.

The last CLC has several different characteristics from the former two CLC. First, consumers have to bear costs for recycling used home electronics, which used to be collected by local government or specialized dealer-processor without costs for consumers. It means that manufacturer and retailer can claim a payment for consumers to abandon their home electronics. It can bring the consumers' illegal abandonment and the increasing monitoring cost for local government. It is depending on the moral and self-consciousness of consumers. Second, there is the problem that products from the recycled materials can obtain sufficient demands and markets in the competition with products from new virgin materials. It cannot be denied that recycled products tend to be in the disadvantage position in price and quality compared to new products. Third, the last CLC is difficult to be controlled by one actor. Manufacturers and retailers will not cooperate without economic incentives, such as reservation of the technical innovation and competitive advantage by recycling activities. Consumers will have no tangible profit. They only have the psychological factor of duty and solidarity. Whereas the local government can enforce its mandatory control power, there is a limit for its effective enforcement.

CASES OF OPEN CLC

Wastes and materials, which cannot be circulated in the closed CLC, have to be disposed by the local government. While most of wastes have been disposed as the incineration and/or reclamation disposal, the open CLC is a trial for recycling reusable wastes. In the open CLC, manufacturers and retailers have no strong commitments. Local government also has no strong enforcement based on the institutional law. Consumers have no economic incentives and legitimate duty to cooperate with the open CLC. In this situation, trust seems to be important role for the open CLC. Price, which has its base on economic incentives, and command, which has its base on authority and legitimacy, cannot be expected to be an effective governance mechanism for the open CLC. Trust can support other two mechanisms in their base and operate the open CLC effectively. For exploring it, several cases are discussed.

The first case is the plan of waste processing promotion in Fukuoka prefecture. It was enacted in 2002, and declared the following four basic policies.

1. Decreasing exhaust and promoting recycle
2. Clearing and strengthening the responsibility of exhaust and proper processing
3. Securing of proper processing , uplifting the consciousness and improvement of processing technology
4. Enhancement and enforcement of monitoring and guidance system
5. Promotion of public participation business

As strengthening the cooperation of residents, company and local government, manufacturers work to collect and re-use their own products, reduce container and package, and convert materials into more recyclable materials. Local government makes plans for recycling and monitors it. It can use the restricted measures and economic measures for improving the effect.

The second case is the Environmental Master Plan of Shinjo City. After the first plan had been passed ten years, Shinjo city has enacted the second Environmental master Plan in 2006. This plan has four basic frames.

1. Formation of fine environment based on recycling society

2. Preservation and utilization of natural environment and cultural heritage
3. Improvement of environmental learning and action
4. Promotion of environmental industry

The plan also points out the roles of citizen, company and local government, and preaches their collaboration. The role of citizens is to learn the relationship with environment, to review their life, and to participate in the environmental preservation and action. The role of company is to prevent the environmental pollution, to build the recycling system, to participate in the environmental preservation and action, and to work at the eco-business. The role of local government is to collaborate with citizens and companies for promoting actions, to exercise leadership in promoting steady actions, to release the proceeding situation, and to lead regions and districts.

CASES OF INTERMEDIATE CLC

The intermediate CLC emphasizes the important role of intermediaries and/or middlemen. In this channel, waste will be returned on the re-use base. However, waste is only returned as it is which is different from the open CLC where waste is returned as materials or resources for the reproduction. It is because intermediaries/ middlemen are positioned the next of consumers and have the important role in this channel. The other significant difference from open CLC is that in open CLC costs derivative from return channel can not be covered and they are covered by the public subsidy and/or finance because of the insufficient market for this channel. In this sense, the intermediate CLC is considered as an amalgamation of market and non-market.

The Shiromi Shopping Street in Kumamoto city is a case of the intermediate CLC. The ecological action of Shiromi has been activated from 1999 with the corporate identity (CI) of "the eco-station shopping street". In 2000, Shiromi made its original certificate of KSO14001. The purpose of this certificate is (1) formation of the eco-shopping street, (2) environmental education and learning, (3) formation of local community. The development of Shiromi has three aspects.

The first aspect is the internal network for the collaboration of component members. This internal network has the role of integrating members on the concept or slogan of "the environmental shopping street". The key for success is that this integral concept can be agreed by members with its fun and profitability. Without them, members and its organization can not be operated. In this sense, the internal network needs the price/market governance mechanism. It can be a system of economy and ecology.

The second aspect is the community network taking in consumers and townspeople and getting their collaboration. This collaboration can be supported by their voluntary consciousness and solidarity. The functioning of Shiromi as the eco-station is based on the loose network with the reciprocity and trust. However, this loose network based on the reciprocity and trust has no coercion power and economic incentives. It will need a rule as a control mechanism and an economic incentive mechanism.

The third and last aspect is the external network including local government, collection and recycle dealers, and manufacturers. Dealers and manufacturers will participate and act as economic concerns. This part of network consists of economic network on the price/market mechanism. The other part of network consisting from political network subsuming local government will basically depend on reciprocity and trust. However, it also can not ignore the price/market mechanism that can cover costs.

CONCLUDING REMARKS

The discussion of cases with the framework of the closed, open, and intermediate CLC can suggest us to consider and explore the importance and problems of CLC.

First, although the locus of responsibility is clear in the closed CLC, it is not clear in the open and intermediate CLC. In the cases of the open CLC, townspeople, company, and local government have their role respectively. However there is no clear responsibility for the successful recycling system. Whereas local government has the responsibility to operate the recycling system and bear most costs of the system, the enforcement power of local government is weak, and the successful operation of the open and unstable CLC depends on voluntary wills and trusts of participants. In the intermediate CLC, there lies the basic price/market mechanism which is controlled by the reciprocity/trust mechanism.

In conventional FWC and closed CLC, firms and public governments have been controlling channels with coordination mechanisms as price and/or authority as a proactive actor. In contrast, consumers will be expected as a proactive actor to participate in and operate CLC. Coordinating mechanisms of price and authority cannot be denied and excluded as CLC includes economic activities of participants. However, it is also clear that CLC cannot be successfully operated only with price and authority. Cases may suggest the importance of trust for operating CLC and combining markets and authorities as the economic and social embedded bond.

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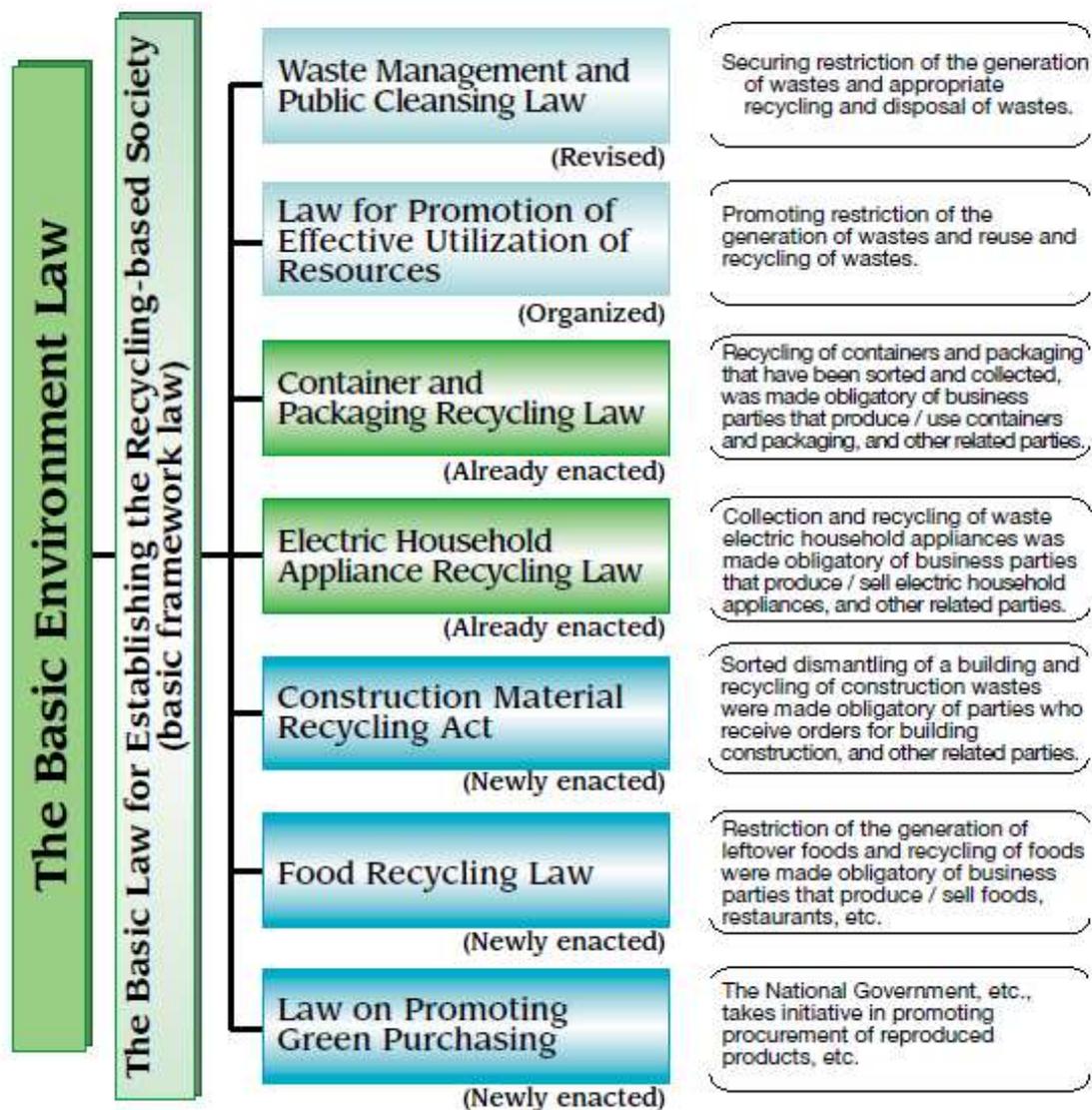


Figure 1 Source: Japan Environmental Agency

Points in Laws Enacted and Revised Based on the Basic Law.

Revision of the Waste Management and Public Cleansing Law

- Establishment of a framework for prefectures to establish facilities for safe and appropriate waste disposal
- Strengthening of responsibility of a discharging business party (business party that discharges wastes)
- Prohibition of outdoor incineration, etc.

Law for Promotion of Effective Utilization of Resources (revision of the Law for the Promotion of Utilization of Recycled Resources)

- Introduction of measures for restricting (reducing) the generation of wastes through saving product resources and prolonging the use life of products
- Introduction of measures for reuse of parts, etc.
- Making it obligatory for business parties themselves to systematically take measures to reduce and recycle by-products.
- Making product collection and recycling obligatory of business parties, etc.

Construction Material Recycling Act

- Making it obligatory for a party that placed an order for dismantling of a building, to report to the prefectural governor.
- Making the following obligatory of a party who received an order for dismantling of a building, etc.
 - ① Sorted dismantling of specific construction materials (concrete, wood, etc.), etc.
 - ② Reuse of specific construction materials as resources
- A prefectural governor's advice, warning, or order to a party who received an order for dismantling, etc.
- Registration of building dismantling business parties with a prefectural governor, etc.

Food Recycling Law (law concerning promotion of reuse of food recyclable resources, etc.)

- The National Government establishes judgment standards related to efforts by food-related business parties (business parties that produce/sell foods, restaurants, etc.) , regarding restriction of the generation of leftover foods and their recycling.
- Food-related business parties will promote recycling, etc., according to the judgment standards.
- A registration system of reuse business parties will be established, and use of foods as fertilizer and feed will be promoted.

Law on Promoting Green Purchasing

- The National Government, etc., takes initiative in promoting the procurement of environmentally friendly products (eco-products), such as reproduced products, based on the procurement plan.
- Promotion of providing information helpful for "green purchasing," etc.

Figure 2. Source: Japan Environmental Agency

MEDIATION AND INTERNATIONAL NETWORKS. THE CASE OF INTERTRADE SALERNO

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Purpose: The study focuses on the role of mediation, knowledge diffusion and creation of international channels by public and private organisations operating in the sector of services to favour internationalism. Findings from an analysis carried out on Intertrade suggests that its role be expanded to guarantee support to local enterprises during the international relation life cycle of SMEs in Salerno.

Design/Methodology/Approach: the Network Theory (NT), the Resource Based View (RBV), and the Viable Systems Approach (VSA).

Findings: the analysis shows that the presence of Intertrade in the life cycle of relations, is limited only to the start-up stage and potentially to the development stage in terms of preparation of contracts.

Practical Implications: The future assumption of a role of *prominence* by Intertade depends not only on its ability to create initial harmonious conditions between local and international operators, but also on its capacity to build and consolidate a relational network. The outcome would be improvements in the operative structure of Intertrade by means of organisms such as a Permanent Observatory as systemic support for internationalism in SMEs.

Originality value: The hypothesis of growth and a greater role of cohesion played by Intertrade in international networks, leads to a variety of considerations. Above all, the opportunity for Intertrade to penetrate a “market” niche in the varied context of services for internationalism.

Keywords: *international network, gatekeeper, broker, international relations.*

Type of paper: Research paper

INTRODUCTION

The study focuses on the role of mediation, the diffusion of knowledge and the creation of international networks by public and private organisms operating in the sector of services for internationalism; in particular with regard to enterprise in the province of Salerno. The main constraints hindering international development are the outcome of principally of late development processes in the area, and by the inadequacy of enterprises to manage processes of internationalism independently. The paper analyses the role played by Intertrade, an associate Company of the Salerno Chamber of Commerce in coordinating internationalism projects put in place by SMEs in the area. Intertrade evaluates local entrepreneurial potential for competition and value creation both in a regional context and in the Mediterranean basin scenario. An in-depth analysis of current reports and international networks triggers considerations on the opportunity of extending the role of Intertrade from that of gatekeeper to broker (Piciocchi, 2007) to guarantee support during their life cycles, to local enterprises with an international interest. The study was inspired/starts from a review of the literature on options for creating

international networks; the value of relations and how to obtain relevant competitive advantages. The hypothesis on which the study is based derives from the representation of the network of international relations between Intertrade and its context of reference. At a later stage, a new reticular configuration using a Network Analysis software such as UCINET, is proposed, to envisage the potential actions and strategies that Intertrade could put in place to improve and strengthen its role in international terms. The conclusive phase of the study defines the potential opportunities arising from changes in international relations, by virtue of a favourable new configuration of the network where Intertrade would play a core strategic link role, that of qualified star of international networks.

LITERATURE REVIEW. THE ROLE OF THE LINKS IN A NETWORK AND THE VALUE OF RELATIONS. FROM NETWORK THEORY (NT) TO THE VIABLE SYSTEMS APPROACH (VSA).

Globalization requires an innovative approach to problem solving and decision making relative to the internationalism of enterprises. In this respect, relevant theories such as; the Network Theory (NT) the Resource Based View (RBV) and the Viable Systems Approach (VSA) can be applied in the formulating and implementing of projects of internationalism. The merit of NT (Granovetter, 1985; Killworth, 1990) lies in the observation and controlling of eventual conditions which might penalize the functioning of the network. Besides, such surveys enable the roles and strategic weight of organizations offering services to enterprises (such as Intertrade) in international networks to be verified, with a view to developing cooperative synergies. In this respect, with RBV (Moigeon, 1998; Siano, 2001) effective knowledge sharing in networks and spatial diffusion is underlined, as it guarantees competitive, cooperative and sustainable advantage. RBV enables better understanding of the dynamic relations in cognitive systems (Vicari, Troilo, 1999) the result of a combination of resources, skills, routines and individual capacities. From a RBV perspective Intertrade is a strategic link of the *star* type for the entire lifecycle of the international network, capable of coordinating and guiding the network in its creation and sharing of competitive advantage. The recourse to VSA (Golinelli, 2000-2005) enables the requalification of the systemic connective tissue binding the various international partners with a view to achieving consonance and resonance in the system and the identification of strategic roles within the network. Bearing in mind the structural composition of the context in which the network develops, ASV provides interpretative schemes to analyze governing dynamics, through the identification of three structural levels (Barile, 2008):

- the *Organizing Subject* (O.S.) appointed to identify action lines coherent with the context within which the different international networks will function;
- the *Coordinating Subject* (C.S.) to develop relevant proposals in line with the context individualized by the O.S and adequate to diverse business needs;
- the *Proposing Subject* (P.S.) to carry out projects linked to the proposals formulated by the C.S. In conformity with acknowledged guidelines (O.S. and C.S.) transposing them to the context, highlighting specific instances of the context and referring them to the Organizing and Coordinating Subjects.

Such governing levels linked to the resource-capacity-competence cycle qualify systemic governance as per the scheme below;

LOGICAL LEVELS OF GOVERNMENT	SPECIFIC DOTATION ELEMENTS	STRUCTURE CATEGORY
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ORGANIZING SUBJECT (O.S.)	RESOURCES: <i>Identification and classification of the territorial resources for consideration</i>	Logical structure <i>(Design of the potential structure of the network)</i>
COORDINATING SUBJECT (C.S.)	CAPACITIES: <i>Identification of components and internal/external and local/International conditions</i>	Amplified Structure <i>(Prediction of internal/external and local/International conditions)</i>
PROPOSING SUBJECT (P.S.)	COMPETENCES: <i>Identification of interactive opportunities for the components to carry out activities and processes</i>	Specific Structure <i>(Operative structure of implemented network)</i>

Table 1 - Structural pattern of roles in networks. Source: Adapted from Barile, S. (2008) *L'impresa come sistema. Contributi sull'approccio sistemico vitale, II ed., Giappichelli, Torino.*

Qualifying governance levels enables the effective role and weight of Intertrade in international relations to be measured and strategies and roles to be modified where necessary.

THE PRESENT POSITIONING OF INTERTRADE IN INTERNATIONAL RELATIONS BETWEEN SMES IN SALERNO AND FOREIGN PARTNERS.

A scientific approach qualifies Intertrade as a "mediator" in internationalism processes and ostensibly in the future, as a core link of the star type in international networks. Through Intertrade, the Chamber of Commerce of Salerno ranks economic, social and institutional power points in the Salerno territory, projecting an integrated system on foreign markets. Intertrade's activities are characterized by a series of initiatives in which potentially interested enterprises are invited to take part. This is the outcome of specific and random requests on the part of enterprises and recommendations on the part of the Ministry of Foreign Affairs and the Ministry of Economic Development, regarding programmes stipulated between the Ministry, the Institute for International Trade (IIE), Unioncamere and Assocamerestero, the Campania Region, the Board Chamber and the Province of Salerno. Intertrade cooperates with leading sectors of the economy in the province of Salerno and is always open to collaboration in any economic area in the world. Intertrade's mission is to guide the global approach relative to the economic system and local productivity from a merely casual to a rational and synergistic procedure. Through its services, this Special Agency takes care of organization and market development, reduces operative difficulties encountered by local enterprises intending to take up international activities. In this context, Intertrade's priorities are:

1. to operate in conformity with the policies of the Chamber of Commerce, Salerno;
2. to set up management policies to guarantee continuation in terms of support activities for internationalism and community integration;
3. to develop innovative promotional services for small or medium-sized enterprises, in particular for sectors where structural crises render it imperative that the province of Salerno have access to European Union funding, taking into account that local firms are operating in an economically disadvantaged area.

THE AREAS IN WHICH INTERTRADE OPERATES

Intertrade promotes a series of informational initiatives or technical assistance to facilitate internationalism procedures for SMEs in Salerno. Intertrade's programme for foreign development is illustrated below. see Table 2:

<p style="text-align: center;">ECONOMIC INFORMATION Enterprise Europe Network-relais BridgEconomics South Italy- UE,European Commission ,D.G.Enterprises</p>	<p><i>Intertrade offers customised information concerning community and national regulations, technical aspects regarding customs and tax, national, international and community, programmes and financing, public contracts.</i></p>
<p style="text-align: center;">UPDATING AND TRAINING FOR INTERNATIONAL TRADE Extender – MAE, Programme Agreement Unioncamere and Assocarestero</p>	<p><i>Intertrade organizes specialist seminars and workshops; courses in international management and trade missions for improving both performance of local enterprises and the image of Made in Salerno</i></p>
<p style="text-align: center;">SPECIALIST COMMUNICATION Globus</p>	<p><i>Intertrade’s integrated communication system known as Globus, promotes services and initiatives in support of internationalism; it supports and evaluates business activities, those of the board holding and those of the Salerno business community; it provides enterprises with updated informative tools, and enables foreign users to obtain information on the economic situation in Salerno , advising and assisting them when in search of local partners</i></p>
<p style="text-align: center;">TECHNICAL ASSISTANCE BridgEconomies - B2Europe</p>	<p><i>Intertrade offers specialist services regarding contractual issues in the negotiating phase; lists of exporters, importers, buyers, distributors and agents; inspections to ascertain the reliability of new partners or clients and makes ad hoc enquiries relative to foreign markets or sectors</i></p>
<p style="text-align: center;">PROMOTION Promoexport</p>	<p><i>To increase business opportunities abroad, Intertrade offers enterprises assistance regarding market regulation; economic information; entrepreneurial training and promotes infrastructure and the diffusion of quality</i></p>

Table 2 – Intertrade activities

In short, in conformity with these guidelines, Intertrade operates in territory areas of the province of Salerno in order to:

- provide a wide range of information on international conditions and opportunities;
- promote local products and services focusing on flexibility, innovation, local/typical production and quality;
- organize managerial and technical training to update local professionalism to European standards in marketing and managing productive and commercial areas.

WHERE INTERTRADE OPERATES

On an international scale, the main places of interest for Intertrade, the Special Agency for the Chamber of Commerce of Salerno are:

- Western Europe (France, Spain, Germany, the United Kingdom);
- Central Western Europe (Serbia, Croatia, Bosnia Herzegovina, Hungary, the Czech Republic, Slovakia);
- New Independent States;
- The Mediterranean Area, Africa, the Middle East (Tunisia, Turkey, The Arab States, Qatar);
- Asia (Singapore, Hong Kong, Japan, India);
- the NAFTA Area (USA, Canada, Mexico);
- the MERCOSUR Area (Brasile, Argentina, Perù).

Two sectors have been tested in our research (Cosmetics and the clothing/manufacture sectors) with mediation by Intertrade achieving successful results.

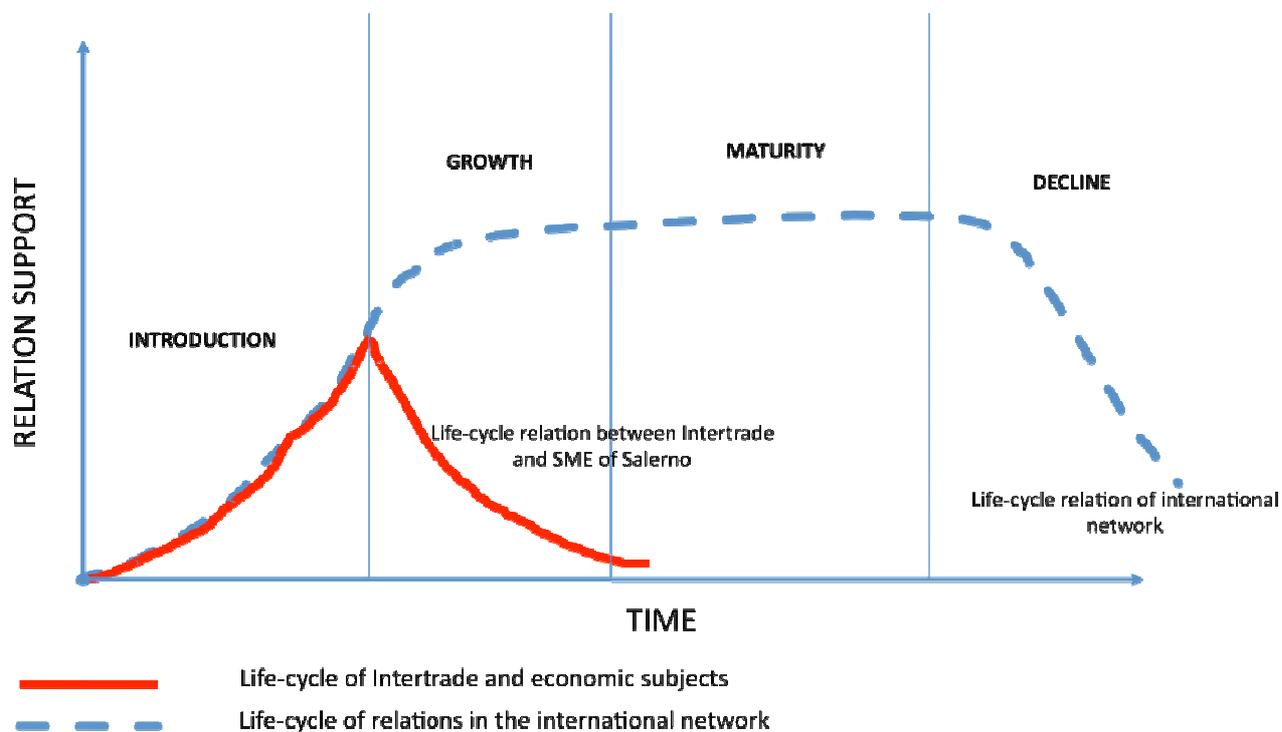
The enterprise X, owners of enterprise Z, is a company operating in the sector of natural cosmetics. The company already has dealings abroad, in particular in the United States. In 2008 it requested Intertrade to provide a list of oil and extraction producing enterprises in the Middle East. Intertrade's BridgeEconomics area, Intertrade tracked down the necessary economic information, communicated the results of their research and provided the user with the names of a series of SME's operating in the Middle East. The main contact was made with the enterprise W, one of the major oil and extractions company in the Lebanon. A report was requested on their reliability prior to the user establishing eventual business relations. Using the information obtained from an external borker, Intertrade issued an exhaustive picture of the W, which in turn, allowed the managers of Z to peruse a draft agreement with the W. In July 2008 Z and the Lebanese company stipulated an agreement. The W was appointed sole agent for 11 Middle Eastern states on behalf of Z, and were appointed distributors of the products in and outside Europe. Qatar was the first Middle Eastern state to trade Z products.

File 1. Information and Consulting support on internationalism

The enterprise Y is a company operating in the clothes manufacturing sector. The company requested Intertrade to draft them a model contract, which authorized the hiring of machinery and industrial equipment out to a third party operating abroad to decentralize production without having to sustain factory costs. The B2Europe area, appointed to deal with finding and formulating contractual information, defined a series of clauses in the contract which stipulated the transfer not only of instumental goods linked to the manufacturing process, but also that of all the necessary knowhow and expertise to train human resource capital for the company. This met with Y agreement. In 2009 the company based in Salerno, set up a partnership with an Albanese SME, which, at its own expense, manufactures the commissioned products, subject to the transfer of the goods instrumental for production and to the training of internal personnel under the commitment of Y.

File 2. Contractual Information and Consulting support on internationalism

The analysis of the two sectors and the cases illustrated, confirms Intertrade as a “channel intermediate” and not a proposing and coordinating subject of the international network. The presence of Intertrade in terms of the life-cycle of relations, is limited only to the start-up phase, and, potentially, to the development phase regarding the drafting of contracts .Accordingly, the life-cycle of relations is that of the modular type (Kotler, 2006), as can be evinced from Fig.1.

Figure 1 - The current presence of Intertrade in the international relations life-cycle

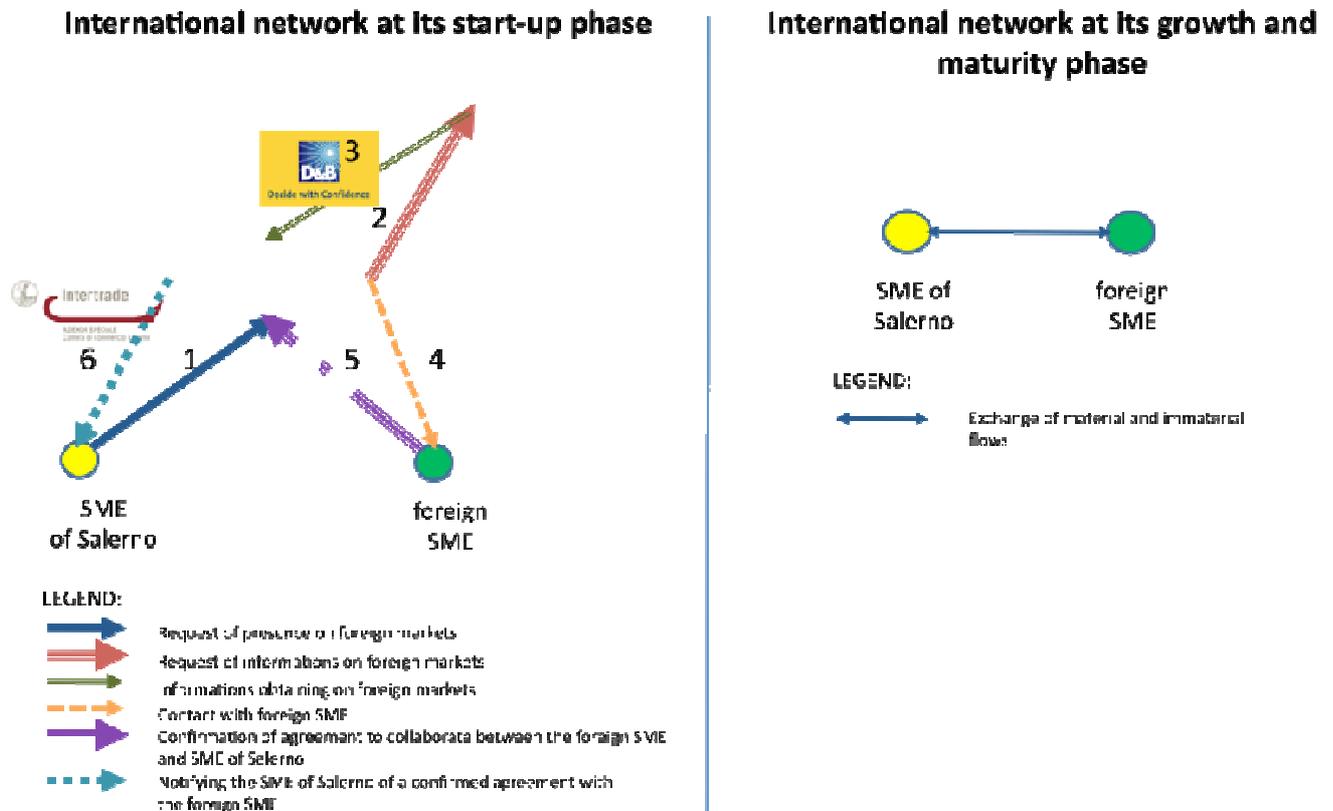
Source: Our adapment from Kotler P., *Marketing Management 12th edition*, Pearson Prentice Hall, 2006

However, the Special Agency's role in terms of current support action penalizes its strategic role and weight; Intertrade merely collects information and plays a limited role in procedural support, not providing administrative action in conformity with a prominent role in the network which would be characterized by two fundamental elements:

- *powership*: capacity to direct and transmit relations within a network;
- *prestige*: legitimacy and recognition by the related links within the system.

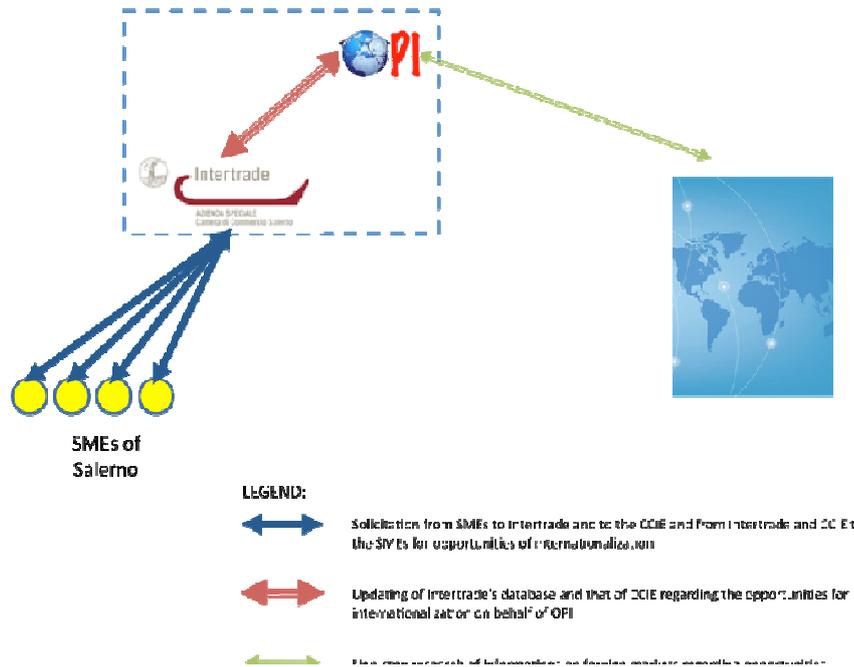
On this basis, a prominent role would be attributed to Intertrade of guarantor of *governance*, shared and acknowledged at both a local and international level, not only in terms of dissemination of information to the links in the network, but also in operational terms and in supervising relations, as well as in terms of a catalysing function of stimulus for new initiatives deriving from both the local and foreign context.

Figure 2 - The current role of Intertrade's relations of the spot type



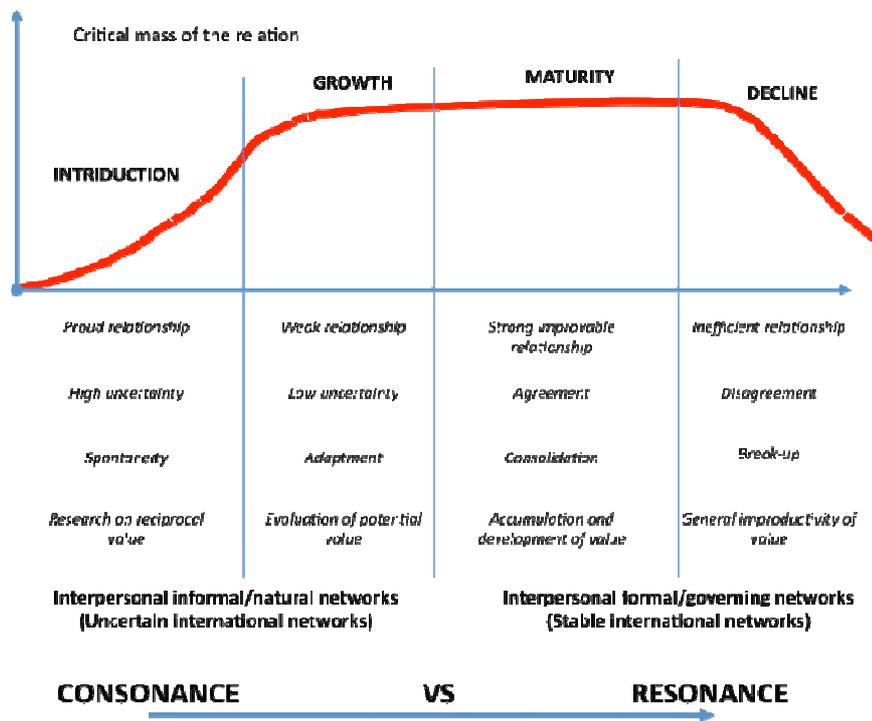
REDEFINING INTERTRADE'S ROLE AND INTERNATIONAL RELATIONS

The projection of Intertrade to a role of *prominence* and long-term widespread action in the international network, would not only depend on its ability for creating the initial conditions of consonance between local and international operators, but also in its capacity for establishing and consolidating a relational, resonant tissue, to guarantee, long-term synergies, syntropy and trust in the network.

Figure 3 - Intertrade's new role in international relations

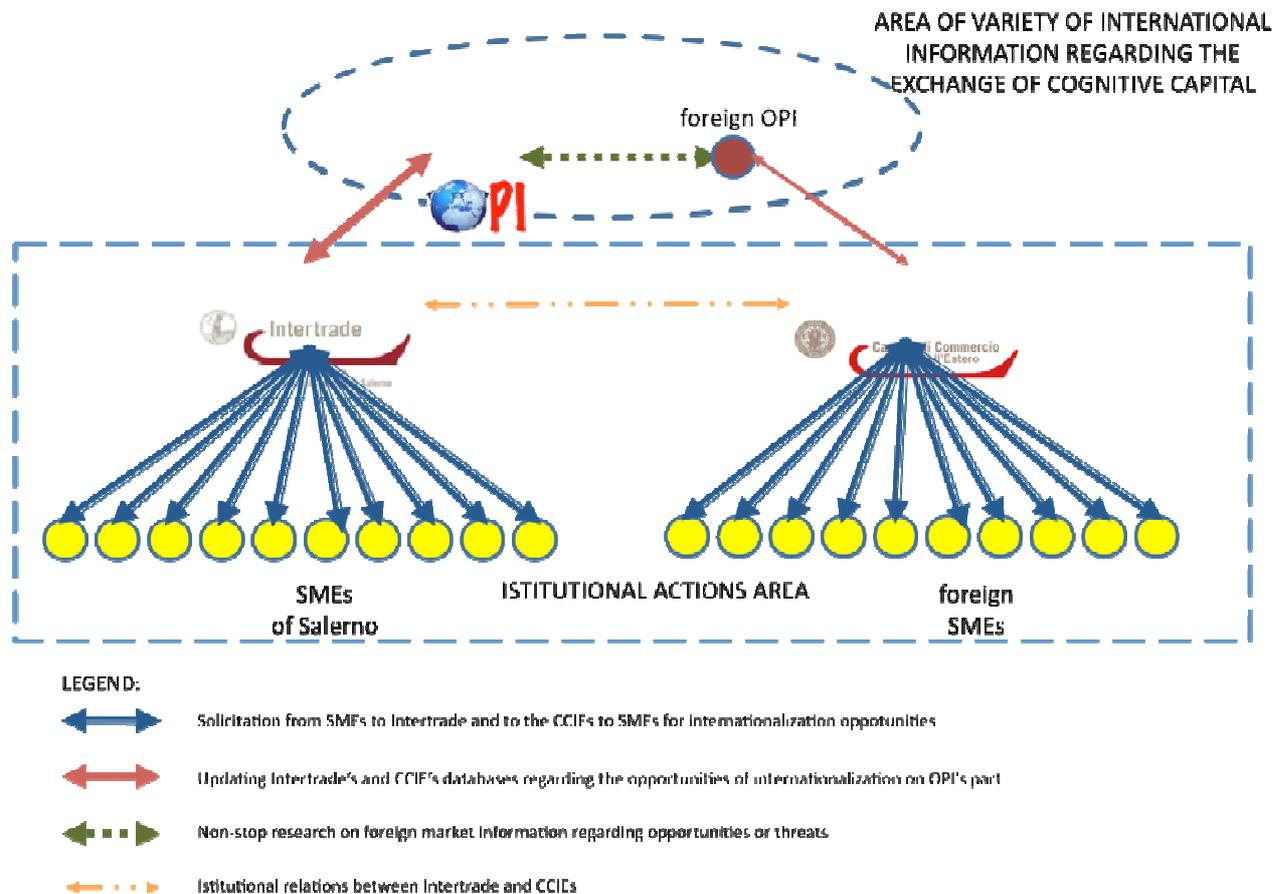
To achieve this aim, a transformation in Intertrade's operative structure would be advisable. Creating a Permanent Observatory for Internationalization (OPI) for example, through its support systems would be a case in point, capable of securing systemic support in terms of the globalization of local SMEs. The Observatory would guarantee constant assistance throughout the working lifecycle of the international network in terms of creation, implementation, monitoring and control.

Figure 4 - Logical, relational flows governed by Intertrade



Source: Adapted from Barile, S. (2008) *L'impresa come sistema. Contributi sull'approccio sistemico vitale* II ed. Giannichelli Torino

Intertrade would consequently be qualified as an influential subject, the retainer of fundamental resources, in terms of cognitive capital, expertise and guarantee and whereby Intertrade could provide a virtuous circuit of internationalism. The stability and growth of relations with organisations abroad such as the Italian Chambers of Commerce would be a logical trend in improving the operative and informative efficiency of networks relative to foreign markets.

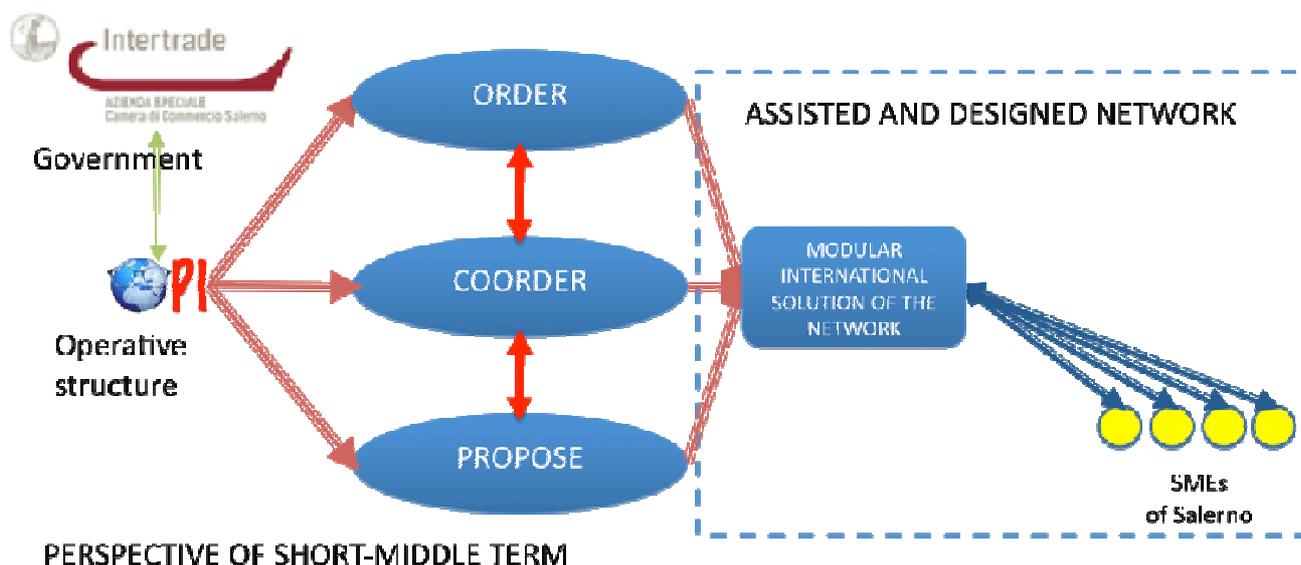
Figure 5 - The new reticular configuration based on Intertrade's star role.

This would produce positive implications of a strategic-operative nature and consequently, international networks would be structured and controlled, capable of guaranteeing low risk performance deriving from knowledge and other significant elements connected to international experience.

SUMMARY AND CONCLUSION

The hypothesis of Intertrade developing a major role of cohesion in international networks, suggests a series of reflections. Above all, the opportunity for Intertrade to place itself in a "market" niche of effective services for internationalism. This would enable the Service Agency to improve its services qualitatively and quantitatively by means of a virtuous cognitive circuit. In effect, Intertrade, would shift from covering an active to a pro-active role, generating momentum inside the service market and would represent a model of *best practices*, not only for local organisms, but also for all the international *strategic-relational intermediation* operators.

Through the Observatory, Intertrade, and as a consequence, the CCIAA of Salerno, render even more concrete and consonant support action and collaboration with local SMEs in the pursuit of opportunities linked to industrial, international and communicative development and to implementing processes of internationalism. In establishing its target, the Observatory is attributed different functional roles for strengthening the international competitiveness of the economy of the province of Salerno.

Figure 6 - Formal network for the service of Internationalization of the SME's of Salerno.

The definition of the role of the Observatory is detailed below:

1. Organizing: identification and classification of territorial enterprises, elaboration of information collected, monitoring and analysis of expansion trends abroad concerning local enterprises and foreign investment trends in the Salerno region;
2. Coordinating: creation of an adequate functional, logical-strategic bond, for the development of international procedures;
3. Proposing: planning and implementation of operative actions in support of direct and indirect internationalism of the Salerno economy.

In the long term, the expansion and evolution of the initial network can be envisaged. This is predictable as like all SMEs in Salerno, any enterprise, worldwide, needs institutional partners who are able to guarantee a facilitated approach to foreign markets, especially if reference is made to firms of small-medium dimensions that do not have a sector dedicated to internationalism. The presence of an Intertrade counterpart in the 74 countries in which the Italian Chamber of Commerce is present or vice versa the presence of an internal sector in the foreign Chamber of Commerce board to deal with internationalism issues concerning local enterprises, would result in the creation of a global network where the exchange of information would be in real time and ongoing. In real time seeing that each link of the network relative to the countries in which the Italian Chamber of Commerce is situated, would be connected to Intertrade who would make the required information available in a speedy, continual two-way process.

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DOES INTERNATIONALISATION EMERGE FROM ACCOUNTING DOCUMENTS? A SURVEY AMONG PIEDMONT FIRMS

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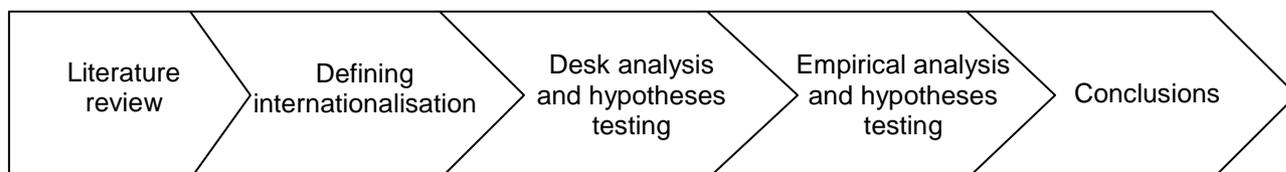
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The topic - The internationalisation of firms has been one of the key topics in International Business research in the last years. Researchers' efforts have been mostly addressed to explain and to describe the development process of firms' international activities. This mission generated a large number of theories attempting to clarify the firms' internationalisation process as a result of the economic globalisation process taking place worldwide.

Moreover, one of the bigger challenges that enterprises have to face today is how to be more competitive, as the economy changes with incredible rapidity and becomes more and more a "knowledge economy". In order to act and not merely react, every enterprise has to adopt, through its managers, strategists and decision makers, the best tools available to reach the goal of being more competitive and efficient. Several firms are trying to reach these objectives through the internationalisation of their activity.

In the Italian context, the small and medium enterprises (SMEs) represent a relevant part of total enterprises and show a high international commitment, not rarely from their inception, thanks to the adoption of global niche strategies.

The research method - The paper examines the relationship between internationalisation and the financial structure of a sample of Italian firms from an economically important Italian region, Piedmont, as it emerges from the accounting documents. The research is to be developed according to a logical-chronological process that follows the steps shown below:



Literature review - The goal of this step is to contextualise the research topic. Several scholars studied internationalisation. The literature review has the objective to find the links among different theories.

Defining internationalization - It is difficult to define what is called "internationalisation" and, especially, what is "the internationalisation of a firm". Many Authors studied the topic from different points of view. As such, we must look to the literature to reach a unique definition best suited for this research. Anyway, a unique definition is necessary to better set a clear paradigm for the next phases of the research.

Desk analysis and hypotheses testing - In this phase we are going to make a classical desk analysis in order to find some key factors for internationalisation from balance sheets, budgets and accounting documents. We perform an analysis on a sample of 250 SMEs from the Piedmont area; Piedmont is one of the 20 Regions of Italy, in the north-west. Its territory presents a widespread industrialisation, featuring mostly SMEs. It has an area of 25,399 km² and a population of about 4,4 million. The capital is Turin.

We will investigate the following factors: 1) the amount of revenues deriving from exports toward foreign countries, 2) the participation to international EU programs, 3) the relationship with foreign

suppliers, 4) the kind of international activity (if present), 5) the amount and geographical destination of investments, 6) the involvement of foreign shareholder and/or foreign managers.

Empirical analysis and hypotheses testing - In this phase we will direct an interview to every firm that in the desk analysis obtained the highest score, i.e. the most internationalised firms of the sample. The main goal of this phase is highlighting – in a deeper way than the simple analysis of their balance sheets, budgets and accounting documents – if SMEs from Piedmont have followed or are currently following an internationalisation path.

Conclusions - Conclusions have the following objectives:

- to explain the results through the interpretation of data;
- to explain which factors are relevant for the results and, thus, which factors inside firms can determine a change in the results.

The contribution of the research - The most original elements of the survey concern the following aspects:

- an empirical test of the presence of different internationalisation paths, through the analysis of data coming both from balance sheets, budgets and accounting documents, both from a questionnaire for a sample of firms from Piedmont;
- an explanation about factors relevant for the results which, inside firms, can determine a change in the results;
- a comparison between the results from the desk analysis and the data from questionnaire. It is interesting to verify if the growth path emerging from balance sheets and accounting documents matches the survey results.

Keywords: internationalisation, SME, balance sheet.

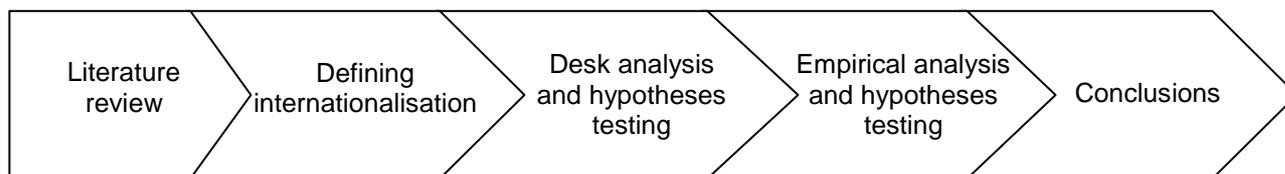
INTRODUCTION

The internationalisation of firms has been one of the key topics in International Business research in the last years. Researchers' efforts have been mostly addressed to explain and to describe the development process of firms' international activities. This mission generated a large number of theories attempting to clarify the firms' internationalisation process as a result of the economic globalisation process taking place worldwide.

Moreover, one of the bigger challenges that enterprises have to face today is how to be more competitive, as the economy changes with incredible rapidity and becomes more and more a "knowledge economy". In order to act and not merely react, every enterprise has to adopt, through its managers, strategists and decision makers, the best tools available to reach the goal of being more competitive and efficient. Several firms are trying to reach these objectives through the internationalisation of their activity.

The increasing importance of SMEs (small and medium-sized enterprises) in international markets has led to substantial research on the internationalisation of SMEs (Lu and Beamish, 2006). The debate on factors affecting the international development of SMEs is very lively and research in this field is attracting growing interest (Cerrato and Piva, 2007). In the Italian context, SMEs represent a relevant part of total enterprises and show a high international commitment, not rarely from their inception, thanks to the adoption of global niche strategies. A recent survey by UNCTAD (2002) has shown clearly how Italian firms have vigorously pursued internationalisation strategies: in 2001 Italy has been the country with the largest increase in the world of foreign direct investments outflows. This result is not isolated, but comes at the end of a ten years period of steady international growth of the Italian outward investments.

The paper examines the relationship between internationalisation and the financial structure (Singh and Nejadmalayeri, 2004) of a sample of Italian firms from an economically important Italian region, Piedmont, as it emerges from the accounting documents. The research is to be developed according to a logical-chronological process that follows the steps shown below:



The literature review will contextualise the research topic; it is in fact necessary to look at the literature to reach a unique definition best suited for the research. In the next phase, a classical desk analysis will be carried out in order to find some key factors for internationalisation from balance sheets, firm budgets and accounting documents, and to test some of the hypotheses. An empirical analysis will complete the hypotheses testing through interviews to every firm which has had a consolidated and constant international activity in the last 3 years according to the desk analysis.

LITERATURE REVIEW

The goal of this step is to contextualise the research topic. The literature review has the objective to find the links among different theories. Many authors have studied internationalisation paths and strategies within their own field of study. As a result, different research approaches have been used to investigate this phenomenon. The main difficulty is to find a horizontal link between these different approaches.

Defining internationalisation

It is difficult to define what is called “internationalisation” and, especially, what is “the internationalisation of a firm”. Internationalisation is a phenomenon researched intensively over the last few decades from a variety of viewpoints, including: organisation theory, marketing, strategic management, international management, and small business management. Issues such as international decision-making and management, the development of international activities, and factors favoring or disfavoring internationalization have been studied for both large as well as small businesses (Ruzzier *et al.*, 2006). As such, we must look to the literature to reach a unique definition best suited for this research. Anyway, a unique definition is necessary to better set a clear paradigm for the next phases of the research.

Given the heterogeneity of small firms and their operating environment, fundamental difficulties arise when seeking to identify and define the critical resources needed for internationalisation (Ruzzier *et al.*, 2006). Drawing on different perspectives of analysis, international business literature stresses the role of factors both internal and external to the business as drivers of firm internationalisation. Economic studies, such as those based on Dunning's eclectic paradigm (1981) and internalization theory (Rugman, 1981), have contributed, in particular, to explaining decisions related to Foreign Direct Investments (FDI) by large multinational enterprises, already at an advanced stage of the process of international development. The eclectic paradigm, also known as the OLI Paradigm, is based on internalization theory and tries to explain the different forms of international production as well as the selection of a country for FDI. According to [Dunning \(1988\)](#), the internationalization of economic activity is determined by the realization of three types of advantages. First, ownership advantages which are specific to the company and related to the accumulation of intangible

assets, technological capacities or product innovations. Second, the internalization advantages stemming from the capacity of the firm to manage and coordinate activities internally in the value-added chain. These are related to the integration of transactions into multinational hierarchies through FDI. Third, location advantages referring to the institutional and productive factors present in a particular geographical area. These arise when it is better to combine products manufactured in the home country with irremovable factors and intermediate products of another location.

Another stream of literature focuses on the internationalization process. In this field, the *stage theory*, which is the dominant paradigm, suggests that the international activity of a firm increases gradually as it acquires knowledge and experience (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977). A firm evolves from a low level of international activities and commitment to higher levels, through stages which are assumedly one-way.

The incremental nature of the process is considered not only as a shift from “soft” internationalisation (indirect exports) to more committed, riskier modes, also in terms of choice of foreign markets: the firm gradually expands from nearer markets to those further away. According to the stage theory, market knowledge is the key factor that influences the time and direction of international development. Only experience can reduce the uncertainty associated with international expansion and, therefore, remove the principal obstacle to it (Leonidou and Katsikeas, 1996). Internationalisation is perceived, here, as an incremental process based on learning. The *incremental internationalisation models* wants to explain how firms generally evolve in their international markets. Knowledge and experience play an important role in firms’ international expansion process. The conceptualisation is based on different theories (Leonidou and Kasikeas, 1996) and examples were progressively spread in the literature (Cavusgil, 1982; Czinkota, 1982; Lim, Sharkey and Kim, 1991; Crick, 1995). From an empirical point of view, some studies have complementarily supported the incremental internationalisation approach (Cavusgil, 1982; Jull and Walters, 1987). However, it must also be acknowledged that others have arrived to opposite conclusions (Sullivan and Bauerschmidt, 1990; Millington and Bayliss, 1990).

Several contributions to internationalisation studies are based on *network theory* (Coviello, 2006). The *network approach* (Johanson and Mattsson, 1988; Welch and Welch, 1996; Andersson, 2002; Hadley and Wilson, 2003) predicts that internationalisation process is affected by influence of external actors or organisations. It is built on the degree of internationalisation of the firm and the degree of internationalisation of the market. Models framed in this approach consider business to be interconnected and within a network. The relationships play a key role in the process of international development, providing access to technological, productive or market resources (Johanson and Vahlne, 2003). Therefore, relational capital (Caroli and Lipparini, 2002), that is the resources and mutual benefits incorporated in a relationship between two or more parties (Dyer and Singh, 1998; Hitt *et al.*, 2006), constitute important factors which guide international expansion. Small businesses, in particular, can leverage on relations to overcome limitations deriving from their size or lack of experience.

The *contingency or business strategy approach* (Welford and Prescott, 1994; Robertson and Chetty, 2000) considers that internationalisation process is contingency based and is the result of the selection of an expansion strategy among a set of competing strategies that are directed by the characteristics of market opportunity, firm resources and managerial philosophy.

Internationalisation paths

It is helpful to fall back on theories of internationalisation from the field of international management.

One of the most influential theories is the internationalisation process model developed by Johanson and Vahlne (1977, 1990). They regard internationalisation as a gradual process in which firms incrementally increase their commitment in foreign markets. A commitment is always associated with uncertainty. The firm extends its international business activities until its particular maximum tolerable risk is reached. This is a function of the degree of the firm's risk aversion and the firm's resource position. The commitment of resources to a foreign market increases knowledge of that market and thus reduces any existing uncertainty about the foreign environment. The internationalisation process is therefore combined with a dynamic learning process over time. An initial involvement in a foreign market reduces uncertainty, which in turn induces an additional commitment to this market. As a consequence, firms start their international activities with relatively few resources because the commitment of these resources is associated with a relatively high amount of risk. Improved knowledge acquired over time through additional commitment to the market leads to more resource-intensive international activities, since the latter become associated with less risk than the firm's initial foreign activities.

The internationalisation process model is the basis of the so-called "stage" models of internationalisation (e.g., Bilkey and Tesar 1977, Bilkey 1978). In these theories the internationalisation behaviour of a firm is linked with different stages of the firm's life cycle, starting from no foreign sales and expanding its international activities incrementally to a more resource-intensive commitment to foreign markets until a final stage of foreign direct investment is reached. Hence, the stage models not only try to explain the entry into a foreign market per se, but also the choice of the optimal market entry mode used at different stages of the firm's international involvement.

The most important criticism of the internationalisation process model and especially of stage theories is the quasi-deterministic character of the models (Reid 1983). The argument is that firms can and will decide on an optimal entry mode and on expansion of their international activities contingent on market conditions. There is no need to proceed in the incremental way described by the model. Johanson and Vahlne have themselves already listed three exceptions where firms are likely to deviate from the gradually expanding commitment predicted by their model. Firstly, large firms may have enough resources to take larger steps in their internationalisation process. Secondly, relevant knowledge that reduces uncertainty about a foreign market can be acquired by other means than own experience, for example by employing an internationally experienced manager.

Finally, if market conditions in different foreign markets are homogenous, firms may generalize experience gained in one market to make larger internationalisation steps in another.

Andersen (1993), however, has criticised the model and pointed to studies that have shown that SMEs do not select foreign markets as methodically as presumed by the model. Andersson et al (2004) argue that the stages model does not explain why some small firms internationalise while others do not. Some firms are international from their birth and have been called: international new ventures (McDougall, 1994; Oviatt and McDougall, 1994, 1995), born global (Madsen and Servais, 1997), and global start-ups (Oviatt and McDougall, 1995). Oviatt and McDougall (1994) and Knight and Cavusgil (1996) as well criticise the stages model as lacking explanations for the internationalisation of small born global firms, which lack both resources and experience.

In a network context, Johanson and Mattsson (1993, p. 306) described internationalization as a "cumulative process, in which relationships are continually established, maintained, developed, broken and dissolved in order to achieve the objectives of the firm". This view, however, seems somewhat fragmented as it focuses exclusively on relationships. Assuming that SMEs operate within their natural context, the view of Johanson and Vahlne (1990, p. 20) developed from Johanson and Mattsson (1993) appears more promising. They define internationalization as the "process of developing networks of business relationships in other countries through extension, penetration, and integration".

In their definition, Lehtinen and Penttinen (1999) try to summarise the fundamental characteristics of the internationalization process based on the Nordic research findings. Their definition also covers two concepts occasionally applied in the context of internationalization, namely international orientation and international commitment. International orientation refers to a firm's general attitude towards internationalization, thus representing an evaluative dimension. Reid (1981) defined it as a measure of the perceived difference between foreign markets and the home market space along economic, cultural, political, and market-strategic dimensions. International commitment is basically associated with the requirements of the operation modes chosen and the size of international business. The latter seeks to position firms somewhere between the extremes of no involvement (domestic firm) and full commitment (a firm with a realized foreign direct investment).

Inter-firm and interpersonal relationships also appear to be influential in other internationalization issues: foreign market selection (Andersen and Buvik, 2002); market servicing (Welch and Welch, 1996); dynamics of entry (Meyer and Skak, 2002); international market development and marketing-related activities (Coviello and Munro, 1995); time of internationalization (Oviatt and McDougall, 1994); propensity to export (Westhead et al., 2001); strategic choices and performance (Peng, 2001); and degree of internationalization (Brush et al., 2002).

Cavusgil and Godiwalla (1982) described the internationalisation process as a process of decisions, which may be categorised along a continuum from clearly strategic decisions, in which firms actively search for opportunities and alternatives, to reactive decisions, in which no clear goals are set and the firm's phases of activity are not determined in advance. In the early stages of internationalisation, the behavior of firms is reactive and incremental, whereas in later stages, this evolves into a proactive decision-making process (Cavusgil and Godiwalla, 1982).

Most of the empirical studies, however, have been focused on large, well-internationalised firms, not on SMEs (McDougall and Oviatt, 1996; Dana et al., 1999). Very few papers focus on the first steps of small and medium-sized firms toward intermediate forms of internationalisation (Wagner and Schnabel, 1994). Only recently has the theoretical debate on internationalization focused more deeply on the specific features of small firms in an attempt to establish a general theory (Julien, 1994). The "classical" literature on the subject had an abstract, general firm model as its reference point and implicitly considered the large firm as its object of analysis. However, a series of studies has underlined that size is no restraint in the international competitiveness of small firms, both because of their important contribution to the trade balance of their respective countries (Hardy, 1986; Beamish and Munro, 1986) and because sales abroad have been shown to be unaffected by firm size (Cavusgil and Tamer, 1980; Edmunds and Khoury, 1986; Ali and Swiercz, 1991; Julien et al., 1994). Not surprisingly however, the results of these studies have produced mixed results. It has also been shown that under certain circumstances, an entrepreneurial culture resistant to change, an increasingly centralized behavior and other country-specific factors can hinder the international development of small firms (Calof and Viviers, 1995; Caruana, Morris, and Vella, 1998; Minguzzi and Passaro 1997,

2001). There is also divergence in the theoretical considerations of the advantages and limitations of SMEs in the literature. Basically, the empirical findings on the relationships between internationalisation and firm performance based on samples of large firms do not necessarily apply to SMEs because it has been well argued and documented that smaller business and larger business are different species (Shuman and Seeger, 1986).

International expansion is an especially important decision for small and medium-sized enterprises (SMEs) who traditionally have a small financial base, a domestic focus and a limited geographic scope (Barringer and Greening, 1998). Two of the most common goals attributed to international expansion are achieving firm growth and improving a firm's profitability (Oviatt and McDougall, 1994; McDougall and Oviatt, 1996). Differences in the scale and scope of SMEs' international operations are often attributed to their home market and industry conditions or the attractiveness of foreign markets (Dunning, 1988). From a theoretical point of view, SMEs have certain advantages over large enterprises, in fact they are able to more easily overcome governance problems (McIntyre, 2002). Some researchers (e.g. Liesch and Knight, 1999) argue that SMEs have the advantage of flexibility and are able to internalise market information to the same degree or better than large firms. However, SMEs also face certain disadvantages to large enterprises, which may inhibit their success in the local market as well as discourage them from pursuing international opportunities. Obviously, a major impediment to SMEs' expansion, in comparison to large firms, is lack of resources (Berkema and Vermeulen, 1998; Calof, 1993, 1994). So, it is possible to analyse the relationship between firm's internationalisation and firm's size in the Piedmont region.

Hypothesis 1: Piedmont's SMEs internationalisation grows with firms' size.

Moreover, the impact of ownership structure on corporate strategy and firm performance has been largely investigated by management literature (e.g. Amihud and Lev, 1981; Lane *et al.*, 1998; Thomsen and Pedersen, 2000). Ownership structure has been analysed in terms of both concentration and identity of the owners (companies, banks, institutional investors, executives). For example, Tihanyi *et al.* (2003) find a significant relationship between institutional ownership by professional investment funds and pension funds and international diversification in a sample of large US firms. George *et al.* (2005) show that shareholders such as venture capitalists, bank and institutional investors, in general, positively affect the scale of international activities of SMEs. Similarly Fernandez and Nieto (2006) provide empirical support to the hypothesis that a corporate blockholder encourages an SME to expand internationally.

We are interested in exploring the effect of a specific ownership characteristic – the presence of foreign shareholders – on the internationalisation of Piedmont's SMEs.

The internationalisation of a firm does not only take place in *real* terms - sales, production and resources located abroad - but it can take place also on the *financial* side, or rather, from the point of view of the type of investor to which a firm is addressed. It has been shown that the two aspects respond to different logics and do not necessarily correlate (Hassel *et al.*, 2003). However, financial internationalisation indicates wider knowledge of the international environment and may be emblematic of a greater opening up also in the way a firm perceives its market (Fernandez and Nieto, 2006). Then, it is possible to study the link between firm's internationalisation and the presence of foreign shareholders and managers within it, in the Piedmont region.

Hypothesis 2: Piedmont's SMEs with foreign shareholders and/or managers are "more internationalised".

By the way, much of the literature on internationalisation of SMEs focuses on the export activities of these firms and the differences between successful and unsuccessful exporters (Leonidou and Katsikeas, 1996). This comes as no surprise, given the aforementioned obstacles to internationalisation. Bilkey and Tesar (1977) describe the export activities of small firms as incidental, whereby firms passively fulfill international orders instead of proactively seeking opportunities. As such, because of lack of resources, SMEs do not approach internationalisation in a systematic fashion and do not possess formal strategies (Bell et al, 2004).

It has been proposed that SMEs follow a model of incremental internationalisation (Katsikeas and Lenidou, 1996; Pedersen and Petersen, 1998; Ellis and Pecotich, 2001). In this view, SMEs start with those internationalisation activities implying the lowest barriers (i.e. exporting goods) and accumulate experience used to develop other forms of international business such as alliances, sales branches, production, and R&D. This model has been challenged by the literature on so-called “born globals” (see Zucchella *et al.*, 2009; Zucchella *et al.*, 2008; Knight and Cavusgil, 2004; McDougall *et al.*, 1994; Madsen *et al.*, 2000; Fryges, 2004). In this view, to take advantage of unique selling propositions they were able to obtain through innovation, some SMEs seem to follow an international business strategy and adopt a global focus from their very beginning.

Hypothesis 3: in Piedmont, there are SMEs which are “internationalised” since their birth.

However, lack of resources, firm size and market opportunity are not the only determinants of the internationalisation success of SMEs. Small firms depend much on the abilities, knowledge and attitudes of those individuals in the firm responsible for international decisions. Some researchers (Moini, 1995; Cooper et al, 1994), for example, have found that the success of exporting firms and new ventures depends on the demographics, while others (Knight and Cavusgil, 1997; Reuber and Fischer, 1997) point to the importance of the international orientation of decision-makers. Cavusgil and Naor (1987) have proposed that the former are less important than factors related to behaviour. Manolova et al (2002) studied the impact of international business skills, international orientation, environmental perceptions and demographics of SME managers and found that skills and environmental perceptions are among the most important criteria for successful internationalisation. Thus, lack of resources in the form of physical capital, might not be such a hindrance if decision-makers of SMEs have a proactive view toward internationalisation. More important are the knowledge, skills, experience and networks of firms and the external environment, which form the strategic foundations of the firm (Welch and Welch, 1996). Jaklic (1998) suggested that networks can be especially useful for SMEs in catching-up economies since it is possible to overcome some of the problems of knowledge and technology as well as capital accumulation. Because large firms often have the resources to easily enter foreign networks, the establishment of network relationships will be even more important for SMEs, especially those which do not yet have clearly defined internationalisation goals. The development and coordination of knowledge inside the firm must be viewed as integral to its internationalisation processes (Knudsen and Madsen, 2001).

The most prominent avenues of internationalisation are: export; FDI; international strategic alliances (Lu and Beamish, 2006).

Exporting is the most common form of internationalisation. In the case of Italy, exporting is not necessarily the most important or most fundamental internationalisation way: Italian firms have recently begun to develop other, more advanced forms of foreign expansion, mainly of non-equity type (Basile *et al.*, 2003).

FDI represents the main tool of internationalisation for medium - and large - sized firms and multinationals. FDI is an investment realised abroad ('active' or 'outward' investment) or from abroad ('passive' or 'inward' investment) in plants, and can take place either through the opening of branch plants ('green-field' investment), or through the acquisition of or financial participation in existing firms ('brown - field' investment). By contrast, small and medium size firms extend their supply chains abroad through international strategic alliances that can come in various forms (Dunning, 2001). The first type is the *non-equity* strategic alliance that is formed through sub-contracting agreements between a firm and one (or more) of its suppliers to supply, produce, or distribute a firm's goods or services without equity sharing. They include, e.g., licensing, franchising, subcontracting. Because they do not involve the forming of a separate venture or equity investments, non-equity alliances are less formal and demand fewer commitments from partners than joint-ventures and strategic alliances (Hitt *et al.*, 2001; Gemser *et al.*, 2004). The second type is *equity* strategic alliance which is an alliance in which partners own different percentage of equity in a new venture or project, or an existing firm. The third type is the *joint venture* where two or more firms create a separate corporation whose stock is shared by the partners. Considering all of the mentioned options, we can propose one more hypothesis.

Hypothesis 4: Piedmont's SMEs realise internationalisation processes which guarantee the physical presence in a foreign country through co-operative strategies rather than any other way.

DESK ANALYSIS AND HYPOTHESES TESTING

In this phase we make a classical desk analysis in order to find some key factors for internationalisation from balance sheets, firm budgets and accounting documents.

The Italian law, like other nations, demands companies to issue a budget each year in order to give information about economic and financial results.

Analysing the minimum information a budget must have, it is possible to determine some relevant "information areas" to understand the degree of internationalisation of the firms.

Among the documents composing Italian budgets (Stato Patrimoniale, Conto Economico and Nota Integrativa), there is a descriptive one, called "Nota integrativa", made of 27 points. It is possible to divide this document in 4 parts:

1. evaluation criteria;
2. analysis of Stato Patrimoniale;
3. analysis of Conto Economico;
4. other data.

Focusing on parts b), c) and d), it is possible to obtain the following information:

- the investments made by the firm, through the analysis of fixed assets, in particular of R&D costs;
- the possibility that a holding group is present, through the analysis of the shares owned by the firm; by the way, there is currently a lack of information in Nota Integrativa about the commercial and financial relationships among the companies of a holding group;
- the classification of sales and revenues concerning sector and geographical area;

- the presence of asset addressed to particular business.

Thus, through a theoretical analysis of Italian balance sheets, we can see how it is not always possible to determine the degree of internationalisation of a firm. In fact, Italian budgets' criteria have always been addressed to creditors and, only secondly, to other stakeholders. Moreover, the Italian law allows many Italian SMEs to make shorter and less complex budgets (called "bilanci abbreviati"), basically lacking almost the information described above.

There is one more document attached to Italian budgets, called "Relazione sulla Gestione", featuring some information about management. In particular, some parts of that document could represent an important tool to determine relevant information and indicators about the internationalisation of Italian SMEs. Anyway, the Relazione sulla Gestione is not very used by the firms we studied, since it is requested only above some financial amounts. The firms must exceed for two following years the following limits: total assets more than 4.400.000 €; total revenues more than 8.800.000 €; more than 50 employees (average per year).

The Relazione sulla Gestione must even supply information concerning R&D costs, though not only about their nature, but about their destination as well. The vision and the relationships among companies of holding groups are also thoroughly described, because, beyond shares and guarantees, the document budgets the flows of costs and revenues, the presence and the exchange of licenses, royalties and know how. The Relazione sulla Gestione features moreover a forecast on the evolution of the firm's management, that can be significant for this research to understand what is the direction of the future business of firms.

We use a panel of manufacturing firms from the Piedmont area; Piedmont is one of the 20 Regions of Italy, in the north-west. Its territory presents a widespread industrialisation, featuring mostly SMEs. It has an area of 25,399 km² and a population of about 4,4 million. The capital is Turin.

We perform an analysis on a sample of 250 SMEs. Consistent with parallel studies on American small and medium sized firms in the entrepreneurship literature (Baird *et al.*, 1994; Hodgetts and Kuratko, 1998; Beamish 1999; Wolff and Pett, 2000), this study employs the definition of SMEs provided by the following European Community standard (Recommendation of the European Commission, May 6th 2003): a small enterprise has fewer than 50 employees, less than 7 million Euro in revenue and less than 5 million Euro in assets. The upper ceiling for a medium enterprise is fewer than 250 employees, less than 40 million Euro in revenue, and less than 27 million Euro in assets. The sample is stratified and randomly selected (it reflects sector's geographical and dimensional distribution of firms from Piedmont) for firms up to 250 employees. We use the database of AIDA (Analisi informatizzata delle aziende), in particular Piedmont SMEs' annual budgets. Additional balance sheet information has been derived from *Centrale dei Bilanci*, a well-known and reliable source of balance sheet data for Italy. The dataset provides information about who controls the firm. We consider budgets of last three years (2006, 2007, 2008), so both qualitative and quantitative data are collected. Qualitative data provide, among other things, information on ownership structure and entitlement to state subsidies. The analysis on the sample is meant to test Hypothesis 1 and Hypothesis 2.

Further analyses in particular include the following: *i*) analyses on structure of enterprise according to size, number of employees and economic activity; *ii*) analysis of SMEs according to number of companies, number of employees and industry.

The empirical analysis draws on a sample which includes small and medium-sized firms in an economy where the market for corporate control is not fully developed. This reduces the

impact of two types of selection bias. The first (Steer and Cable, 1978) occurs when only large firms are included in the sample, since only the most efficient ownership-controlled firms maintain this status when they grow in size. The second occurs in samples containing only small firms when, under an effective market for corporate control, less efficient firms are taken over and excluded from the sample.

According to the Ateco 2007 code (used by Istat, the Italian Statistical Institute), the 250 firms have been classified within six industrial sectors.

<i>Description</i>	<i>Nr. of firms</i>	<i>%</i>
<i>Chemical, rubber and plastic industries</i>	29	11.6
<i>Manufacture of electrical machinery and apparatus, optical instruments</i>	66	26.4
<i>Manufacture of fabricated metal products, except machinery and equipment</i>	49	19.6
<i>Manufacture of mechanical machinery and apparatus</i>	54	21.6
<i>Services</i>	24	9.6
<i>Transports</i>	28	11.2
<i>Total</i>	250	100

Table 1: Division of the sample according to performed activity. Source: AIDA and Centrale dei Bilanci.

Table 1 highlights that the firms of the sample are distributed within all of the economic activities described in the table, with a good number coming from the electrical, electronic and optical industries, from metal products industries and from the mechanical industry.

Table 2 divides the firms analysed according to total sales and number of employees.

<i>Revenue (ml of €)</i>	<i>Number of employees</i>	<i>Number of firms</i>	<i>%</i>
<i>< 0.5</i>	<i>< 10</i>	70	28.0
<i>0.5-1</i>	<i>10-50</i>	147	58.8
<i>1-50</i>	<i>50-250</i>	33	13.2
	<i>Total</i>	250	100

Table 2: Division of the sample by company size. Source: AIDA and Centrale dei Bilanci..

Descriptive features of this sample illustrate some important characteristics of Piedmont's economy in the three years considered: the relative specialisation in traditional sectors and the underspecialisation in high-tech sectors, and the relevant weight of small firms (no more than 50 employees), which account for more than 86 percent of the sample.

No matter which of the definitions of internationalisation described above we adopt, the question is how to measure the level of it for the purposes of this study. We assessed that a broadly accepted indicator of internationalisation is the size of FDI. Alternatively, FDI can also be observed as the capital or equity invested in foreign companies and businesses. Anyway,

SMEs sometimes cannot compete in all international markets, so FDI is probably not the only measure of internationalisation to be adopted. The level of exports is a valid parameter for internationalisation, in fact. Exports are not so challenging for the company in terms of investment and they also show the international orientation of the company. Considering that, we have determined a number of factors, emerging from accounting documents, that can mean a SME is following the internationalisation path: 1) the amount of revenues deriving from exports toward foreign countries, 2) the participation to international EU programs, 3) the relationship with foreign suppliers, 4) the kind of international activity (if present), 5) the amount and geographical destination of investments, 6) the involvement of foreign shareholder and/or foreign managers. Then, following the theories about the influence of internationalisation on SMEs' balance sheets and accounting documents, we analyse the firms' budgets searching for these six factors. In particular, we got some hints from Buttignon, Vedovato and Bortoluzzi's model (2005) about the performances after private equity investments and their impact on growth and profitability, from Haynes, Onochie and Lee's model (2008) about the origin of loans of internationalised SMEs and their debt structure, from Bopaiah's model (1998) about the availability of credit for internationalised SMEs, from Gallo's analysis (2005) about the state of origin of board directors and from Pilotti *et al.*'s definition of the internationalisation index (2007).

Thus, we obtain an *Internationalisation Index*¹¹³ that allows us to rank the firms from the "most internationalised" to the "least internationalised"¹¹⁴. The most internationalised firms obtained a score of 1 (or 6/6), meaning that they fulfil all 6 criteria being researched; the least internationalised firms scored 0,16 (or 1/6), and fulfil only one criteria. In sum, the level of internationalisation of the firms being considered corresponds to the number of satisfied requisites. The results of the classification are summarised in table 3.

¹¹³ *Internationalisation index from 0 to 1 (0 = no requisites; 1 = full requisites).*

¹¹⁴ *For example, in the hypothesis of 6 requisites: group A: firms with an index equal to 1; group B: firms with an index equal to 0.83; group C: firms with an index equal to 0.66, etc.*

<i>Internationalisation Index</i>	<i>Number of firms</i>	<i>%</i>
0.16	67	26.8
0.33	53	21.2
0.50	48	19.2
0.66	38	15.2
0.83	26	10.4
1	18	7.2
Total	250	100

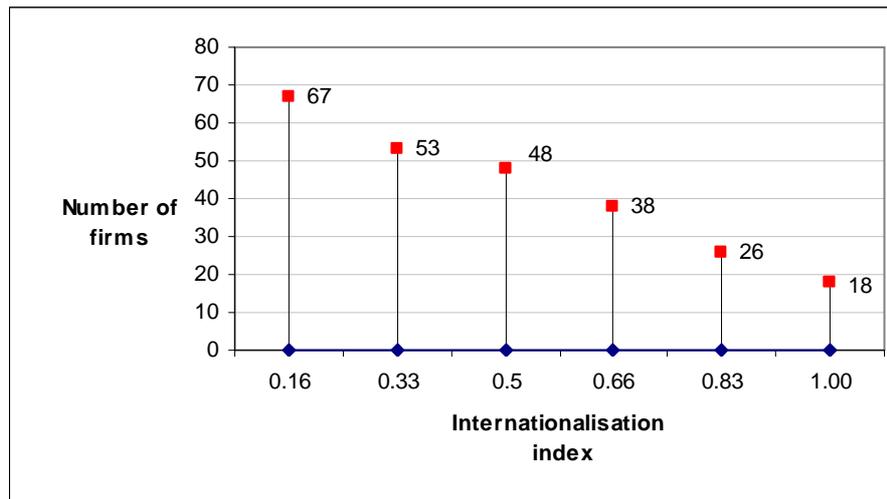


Table 3: Results of the classification. Source: personal research.

Table 4 shows what happens if the *Internationalisation Index* is compared to the main economic activity of the firm.

<i>Description</i>	<i>Nr. of firms</i>	<i>I.I. (average)</i>
<i>Chemical, rubber and plastic industries</i>	29	0.4
<i>Manufacture of electrical machinery and apparatus, optical instruments</i>	66	0.4
<i>Manufacture of fabricated metal products, except machinery and equipment</i>	49	0.2
<i>Manufacture of mechanical machinery and apparatus</i>	54	0.3
<i>Services</i>	24	0.3
<i>Transports</i>	28	0.2
<i>Total</i>	250	

Table 4: *Internationalisation Index (I.I.) and main economic activity. Source: personal research.*

From the data analysis no significant relationship between the predominant economic activity and the *Internationalisation Index* emerges. Nonetheless, the highest average *Internationalisation Index* is found in the electrical, electronic and optical industries, and in the chemical industries. The firms of the sample therefore have levels of internationalisation that are not related to the sector they belong.

Table 5 shows what happens if the *Internationalisation Index* is compared to the size of the firm.

<i>Revenue (ml €)</i>	<i>Number of employees</i>	<i>Number of firms</i>	<i>I.I. (average)</i>
< 0.5	< 10	70	0.3
0.5-1	10-50	147	0.5
1-50	50-250	33	0.6
	<i>Total</i>	250	

Table 5: *Internationalisation Index (I.I.) and firm size. Source: personal research.*

The data analysis reveals that the average *Internationalisation Index* grows as the size of the firm within the sample grows. So, referring to Hypothesis 1 “Piedmont’s SMEs internationalisation grows with firms’ size”, the desk analysis shows that the size of a firm and its level of internationalisation are linked.

Table 6, instead, shows the comparison between *Internationalisation Index* and presence of foreign shareholders and/or managers within the firm.

<i>Internationalisation Index</i>	<i>Number of firms</i>	<i>Firms with foreign shareholders and/or managers</i>	<i>%</i>
0.16	67	4	5,9

0.33	53	3	5,7
0.50	48	3	6,3
0.66	38	3	7,9
0.83	26	2	7,7
1	18	2	11,1
Total	250	17	

Table 6: *Internationalisation Index (I.I.) and presence of foreign shareholders and/or managers. Source: personal research.*

The data analysis is consistent with Hypothesis 2 “Piedmont’s SMEs with foreign shareholders and/or managers are more internationalised”. Firms with a higher *Internationalisation Index*, in fact, show at the same time a higher presence of foreign shareholders and/or managers.

EMPIRICAL ANALYSIS AND HYPOTHESES TESTING

The main goal of this phase is to deeply understand the internationalisation process of these SMEs investigating, in particular, the following hypotheses:

Hypothesis 3: in Piedmont, there are SMEs which are “internationalised” since their birth;

Hypothesis 4: Piedmont’s SMEs realise internationalisation processes which guarantee the physical presence in a foreign country through co-operative strategies rather than any other way.

The testing of these hypotheses highlights – in a deeper way than the simple analysis of their balance sheets, budget, and accounting documents – if SMEs from Piedmont have followed or are currently following an internationalisation path.

Moreover, it is possible to have an accurate framework of the state of art of the internationalisation of the SMEs from Piedmont.

We directed an interview to every firm that in the desk analysis obtained the highest score (1), i.e. the most internationalised firms of the sample. The structured interviews concern the 7.2% of the sample (18 firms) that had obtained a score of 1 on the *Internationalisation Index*. The objective here is to verify if the results of the desk analysis – based on accounting documents – were confirmed by a *vis-à-vis* confrontation with the management.

The interviews to the managers of the 18 firms features questions about the six factors concerning internationalisation path already used to build the index.

Results of the interviewing process

The interviewing process to the managers of the most internationalised firms of the sample from Piedmont area basically confirms the results of the desk analysis carried out on balance sheets, budgets and accounting documents.

Direct interviews show that the percentage of “fully internationalised” firms (*Internationalisation Index* = 1), beginning an internationalisation path since their first year of activity, is 77% (14 on 18). This result is consistent with Hypothesis 3 “in Piedmont, there are SMEs which are internationalised since their birth”.

The interviewing process, on the other hand, highlights that every firm followed different strategies to approach internationalisation: export; FDI; international strategic alliances. In particular, in the case of Piedmont area, exporting is not the most important or most

fundamental internationalisation way; Italian firms sometimes choose to open branch plants ('greenfield' investment), or to acquire or participate in existing companies ('brown - field' investment). Another option emerging from interviews is the *non-equity* strategic alliance, formed through sub-contracting agreements between a firm and one (or more) of its suppliers to supply, produce, or distribute a firm's goods or services without equity sharing. They include, e.g., licensing, franchising, subcontracting. *Joint ventures* represent a further option. Table 7 shows which strategies were chosen by the eighteen "fully internationalised" firms to approach internationalisation.

<i>Strategy</i>	<i>Number of firms adopting the strategy</i>	<i>% (on total number of 18 firms)</i>
<i>Licensing</i>	14	77.8
<i>Joint venture</i>	13	72.2
<i>Export</i>	18	100.0
<i>"Greenfield" investment</i>	3	16.7
<i>Other</i>	4	22.2

Table 7: Strategies chosen by firms to approach internationalisation. Source: personal research.

Referring to Hypothesis 4 "Piedmont's SMEs realise internationalisation processes which guarantee the physical presence in a foreign country through co-operative strategies rather than any other way", the evidence from Table 7 indicates that all of the most internationalised SMEs in the sample adopted at least one co-operative strategy; moreover, co-operative strategies prevail on other approaches, such as "greenfield" investment. Thus, the hypothesis is demonstrated.

CONCLUSIONS

The internationalisation of Italian firms is a phenomenon of growing interest. It is very interesting to verify how the growth path emerging from balance sheets and accounting documents matches the results of the research.

In this paper we have focused on SMEs that have begun to tread on the internationalisation path. We analysed the evidence concerning the link between firms' budgets and accounting documents and their involvement in international operations. That is to say, the main question was whether the first could be an efficient way to investigate the internationalisation path.

To this end, a review of the literature on this topic has been presented (sections 1 and 2). Then a sample of 250 SMEs from Piedmont area was selected, on which the desk analysis was performed. The 250 target firms were studied focusing mainly on accounting data, to appraise the evolution of their internationalisation performances over a period of three years. We then determined an *Internationalisation Index* for all the studied target firms (section 3). The *Index* showed that only the 7.2% (18 on 250) of the sample firms fulfil the six parameters requested to indicate a full internationalisation process. Finally, we carried out an interviewing process on

the eighteen most internationalised firms of the sample for confirming the results obtained from the desk analysis.

In this phase, some evidence emerged. Accounting data can be a valuable tool to highlight the presence of an internationalisation process over the years, since they provide information about revenues from exports to foreign countries, international funds being pursued, presence of foreign suppliers and customers, international investments, involvement of foreign shareholder and so on. Anyway, only SMEs have been investigated, no large companies. It is not clear if the presented empirical findings also hold true for larger enterprises. Yet the study pointed out that this kind of information cannot fully substitute direct interviews to the firms' management or other research tools about internationalisation already used in previous studies.

The road is open for new analyses and elaborations of accounting data, to assess the internationalisation path of SMEs, that may represent a remarkable target for future researches.

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NETWORK CAPABILITY AND ORGANIZATIONAL AMBIDEXTERITY FROM THE OPEN INNOVATION VIEW

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Organizational ambidexterity has become an emerging research trend when it adapt to the environment dynamism in the organization science and strategy research. Previous research focused on the organization-level or unit-level analysis like structural, context and TMT attributes within the organizational boundary, especially focused on the MNCs. However, small and medium firms also need to balance the exploration and exploitation to adapt to the environment dynamism with limited resource engagement in the context of China that the distribution of organizational technology and market resource is uneven. From the open innovation research advancement, inter-organizational ambidexterity that organizations balance the exploration and exploitation simultaneously across the organizational boundary through the co-specialization is more realistic pattern. Through the analysis of interaction of the inter-organizational and intra-organizational ambidexterity, we introduce network capability as the antecedent in the network context and suggest an integrated model.

Keyword-- Inter-organizational ambidexterity, Intra-organizational ambidexterity, Network capability, Open innovation

INTRODUCTION

In the dynamic environment, organizational competitive advantage is temporal and erodes fast. Sustainable competitive advantage requires the balance of the short-term and long-term performance, which means that organization needs to be aligned and efficient in its management of today's business demands while simultaneously being adaptive to changes in the environment. Organizational ambidexterity has gained increasing interest in recent years (Duncan, 1976; Gibson & Birkinshaw, 2004; Tushman & O'Reilly, 1996; Raisch & Birkinshaw, 2008; Simsek, 2009;). From the temporal dimension (Simultaneous vs. sequential) and a structural dimension (independent vs. interdependent), a two-by two typology of organizational ambidexterity is identified as harmonic, cyclical, partitional, and reciprocal ambidexterity (Simsek et a., 2009). However, it seems that temporal separation couldn't promise the dynamic oscillation (Thomas, C., Kaminska-Labbê, R., Mckelvey, B., 2005) and structural separation seems more applicable through organizational design and context, top management teams. Based on the structural separation across the organizational boundary, ambidexterity could be classified as intra-organizational ambidexterity (e.g., harmonic and cyclical model) and inter-organizational ambidexterity (partitional and reciprocal model).

According to prior Chinese scholars' empirical results, we will find that firms in the VCD, Mobile phone, TV and automobile industry gain temporal competitive advantage through open innovation and inter-organizational ambidexterity (Chesbrough, 2003, 2006). There also some firms are successful with the industry evolution like ZTE in the ICT industry and Chery in the automobile industry but most of these firms fall into the exploitation trap and lost the innovation capability. Therefore, the question is that in these industries why firms performance differently in long-term and short-term performance both possessing inter-organizational ambidexterity? Obviously, inter-organizational ambidexterity is not the unique origin of the

difference. “ShanZhai” phenomenon may give us some lessons about interaction of the intra- and inter-organizational ambidexterity for sustainable competitive advantages.

On the other hand, strategic scholars emphasize that external resource (such as social capital, partners’ resources) is important source of the competitive advantage and Open innovation is a new paradigm (Chesbrough, 2006). Organizational partners’ resources and inter-organizational relationship and structure characters have important influence on both the organizational short-term and long-term performance, especially for small- and medium- high-tech firms without enough internal complementary resource, product development or commercial competence et al in the Chinese context with unequally distribution of technology resource. In order to access the external resource embedded in the organizational ego-network to gain the inter-organizational ambidexterity, organizations also need the network capability to orchestrate the innovation network (Dhanaraj & Parkhe, 2006).

Therefore, there are two questions are important for gaining and maintaining sustainable competitive advantages in the open innovation context. The first is organizational network capability, which changes the organizational network to adapt to the network dynamics and to meet the requirements of inter-organizational ambidexterity, and the second is the interaction between inter-organizational ambidexterity and intra-organizational ambidexterity. We suggest that these two research clues could be integrated by extension of the ambidexterity concept.

In this paper, based on the literature review and empirical results, we put forward an integrated framework to analyze the above question. We conclude that future empirical research on the inter-organizational ambidexterity and performance need to take the network capability and intra-organizational ambidexterity into account in the open context, substitution of intra-organizational ambidexterity is related to organizational network capability and constrained by the minimum threshold of the intra-organizational ambidexterity. We begin by reviewing previous discussions on ambidexterity and typology and then focus on the interdependent ambidexterity in the innovation network and we introduce the concept of network capability and suggest an integrated concept model to discuss this problem.

LITERATURE REVIEW

Exploration and Exploitation

There has been a burgeoning literature about exploitation and exploration since March (1991) introduction of the explorative and exploitative learning (Ying Li & Vanhaverbeke, V. & Schoenmakers, W., 2008). Exploration includes things captured by terms such as search, variation, risk taking, experimentation, flexibility, discovery, and innovation. Exploitation includes such things as refinement, choice, production, efficiency, selection, implementation, and execution. Exploration is variation-seeking, risk-taking and experimentation oriented. Exploitation is variety-reducing and efficiency oriented (March, 1991). These two concepts require different structures, processes, strategies, capabilities and cultures, and may have different impacts on an organization’s performance. Following the seminal work, researchers and practitioners are using the concept of trade-off or balance of the two organizational learning behaviors, such as the ambidexterity and punctuated equilibrium, for sustainable competitive advantages. Researchers have used this notion in their discussion of numerous significant and complex organizational phenomena (Tushman & O’Reilly, 1996; Gibson & Birkinshaw, 2004; He & Wong, 2004; Smith & Tushman, 2005; Lubatkin et al., 2006;). Additionally, the importance of ambidexterity for practice is discussed in the many prescriptions offered for firm performance improvement and survival (e.g. Gibson & Birkinshaw, 2004; He & Wong, 2004). As a

consequence, organizational ambidexterity is viewed as an emerging research paradigm in organizational theory (Raisch & Birkinshaw, 2008). Traditionally, balance of the explorative and exploitative learning has been discussed through the structure and temporal dimension.

Temporal dimension: Ambidexterity vs. punctuated equilibrium

The punctuated equilibrium concept, which states the advantageousness of a sequential alignment of exploration and exploitation activities, has a trend of organizations to get trapped by chaos or inertial patterns (e.g., explorative trap or exploitative trap, Thomas & Kaminska-Labbe & Mckelvey, 2005). According to the concept this inertia can only be broken (if a fundamental change is needed due to drastic internal or external changes) by sudden and revolutionary bursts of innovation and organizational change. However, it is highly questionable whether radical innovations and change can be developed "on demand" or in very short development periods (and sometimes coincidentally). Today's world does not only ask for refinements or extensions of established products but mostly for radical new concepts that optimally provide at least a temporary possibility for the inventing firm to escape of highly mature markets. In addition it seems like a long top management team's tenure and a long firm history make it even more difficult for a company to break out of the equilibrium (Puhan, 2008).

Ambidexterity tries simultaneous exploration and exploitation efforts inside a specific organizational structure to balance these activities in an organization and through this to avoid the inertia trap. Ambidexterity therefore follows the concept of March and several other scholars. The tension of the coexistent learning behaviors that need and consist of differing organizational cultures and forms, management styles and reward systems is a critical feature of an ambidextrous organizational concept. It should by design buffer the two conflict activities (Vinekar, Slinkman & Nerur, 2006). However, it appears to be very difficult and especially questionable if the senior management is able to adequately fulfill the integration function of a governing node. Internalizing concerns for the needs of explorative and the frequently conflict needs of exploitative activities is a very tough task (Katz, 2005; Tushman & O'Reilly, 1996). In addition, several studies find that exploratory activities seem to be rather unattractive due to the risky averse and successful trap.

Finally, punctuated equilibrium and ambidexterity were interpreted as two ends of a continuum of the alignment of explorative and exploitative activities (Gupta et al., 2006). However, the sequential alignment of exploration and exploitation at a single organization level could possibly be interpreted as an effort to separate the diametric activities in an effective way without giving up the idea that both activities have to be carried out in order to assure the long-term survival of an organization. The possibility of a concentration on one of the activities and the clearer distance between the two activities is actually a very charming aspect of the concept of sequential alignment. Punctuated equilibrium is also just another kind of ambidexterity but dominated by exploration or exploitation in some region (Thomas, et.al, 2005: P241), see figure 1. Hence the design of inter-organizational ambidexterity is to implement explorative and exploitative activities in a certain structural distance of each other (albeit the design still assures a high level of interconnectedness).

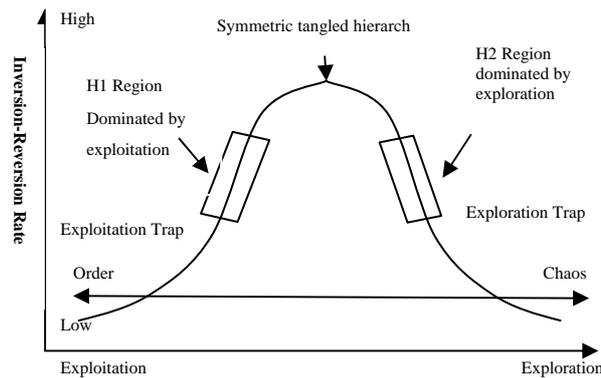


Figure 1- Exploration vs. Exploitation

Structural dimension: Independent Vs. interdependent

From the structural dimension, Simsek (2009) argues that organizational ambidexterity could be classified into inter- and intra-organizational ambidexterity. Inter-organizational ambidexterity includes partitional and reciprocal model. Partitional ambidexterity can be pursued across, as well as within, organizations (Lavie and Rosenkopf, 2006; Lin et al., 2007; Tiwana, 2008). According to the social network theory, this emerging line of research suggests that ambidexterity can be achieved by pursuing exploitation and exploration across network or alliance partners (e.g. Rothaermel and Deeds, 2004), thus relying on market relationship or social relationship.

		Structural dimension Where is ambidexterity pursued?	
		Independent	Interdependent
Temporal dimension How is ambidexterity pursued?	Simultaneous	Harmonic	Partitional
	Sequential	Cyclical	Reciprocal

Figure 2. A typology of organizational ambidexterity

Reciprocal ambidexterity assumes a reciprocal interdependence in which the outputs of exploitation from unit A become the inputs for exploration by unit B and the outputs of unit B cycle back to become the inputs of unit A (Simsek et al., 2009). Reciprocal ambidexterity is best delineated as being a synergistic fusion of complementary streams of exploitation and exploration that occur across time and units such as the ‘discovery cycle’ (Nooteboom et al., 2007). From social network perspective, ambidexterity is achieved through the efficient specialization of exploitation and exploration across an inter-organizational network. Thus, exploitation and exploration can be pursued sequentially across different domains of strategic alliances (Lavie & Rosenkopf, 2006; Ying L, et al., 2008).

However, previous research focused on the organization-level or unit-level analysis like structural, context and TMT attributes within the organizational boundary, especially focused

on the MNCs. After Simsek et al. (2009) introduced the inter-organizational ambidexterity that organizations balance the exploration and exploitation simultaneously or sequential across the organizational boundary through the co-specialization, we can discuss the ambidexterity under the network and open innovation context and the interaction of the inter- and intra-organizational ambidexterity.

Definition of Ambidexterity: Inter- and intra-organizational ambidexterity

Although Duncan, Tushman and O'Reilly, and Gibson and Birkinshaw have delineated ambidexterity from the different context and analysis level, they viewed ambidexterity as the intra-organizational ability to adapt to the innovation evolvement of single or portfolios innovation processes for multifarious objectives. However, ambidexterity need not necessarily be implemented at intra-organization level but can combine its network partners' complementary exploration or exploitation (Gupta, Smith & Shally, 2006; Filiou & Windrum, 2008). This approach termed inter-organizational ambidexterity is based on co-specialization: one organization is devoted to exploration, while associated organizations focus on their core competences in exploitation. Therefore, innovation process could be open-up and enormous part of these activities is carried out cooperatively with organizations and individuals through outside-in process, joint process and inside-out process (Chesbrugh, 2003, 2006).

We agree with Simsek's (2009) typology, Ying's (2008) reframing the interpretation of ambidexterity and Gupta et al. (2006) findings about the multi-level of organizational ambidexterity, here we disaggregate the organizational ambidexterity into intra-organizational and inter-organizational level to emphasis the open context and organizational network and don't think about the temporal dimension which is also another kind of structural dimension. We definite that intra-organizational ambidexterity as the organizational ability to create, modify and extend its internal resource to balance its exploration and exploitation, inter-organizational ambidexterity as the organizational ability to create, modify and extend its network partners' exploration or exploitation to complement its exploitation or exploration. Intra-organizational ambidexterity enables the organization to balance explorative and exploitative activity internally, which prerequisite internal munificence resource base, organizational structure and culture. Inter-organizational ambidexterity enables the organization to balance exploration and exploitation across organizational boundary, which prerequisite network partner's exploration or exploitation through partners' selection and network ties and structure. Simultaneously, the performance of the inter-organizational ambidexterity is moderated by absorptive capability and combinative capability to effectively access to and efficiently leverage network partner's complementary exploration or exploitation.

Network capability

Recent scholars stress that organizations which consist of portfolios of heterogeneous assets and competencies could achieve competitive advantage. However, in fast moving business environments open to global competition, and characterized by dispersion in the geographical and organizational sources of innovation (von Hippel, 1997; Chesbrough, 2003, 2005) and manufacturing, sustainable competitive advantage needs unique and difficult-to-replicate dynamic capabilities (Helfat, et al., 2007). In a networked environment, firms can obtain the benefits of resources from partners without owning or controlling the resources themselves and so can other firms for the same resources, which make the inimitability and imperfect substitutability conditions of the traditional RBV less applicable (Lavie, 2006). At the same time, the effects of network properties on performance suggests that certain network characters and strength of tie can confer at least a temporary competitive advantage, especially due to its

complex, causally ambiguous nature. Furthermore, empirical observation shows that networks change, not just through exogenous events, but also endogenously as a result of purposeful firm action to change their position and strength of tie to achieve a competitive advantage (Liere et al., 2008). According to the network dynamics, the nature of the network capability is dynamic capability.

Based on the prior alliance capability and alliance portfolios management research, we introduce the network capability concept. This article would not like to expand this discussion about the network capability detailed. Network capability could be disaggregated into three parts including (1) network horizons capability; (2) network exploitative capability; (3) network explorative capability. Liere and Koppius (2008) argued that recognizing advantageous network positions is key for organizations to obtain and sustain competitive advantage and they introduced a construct named network horizon as the percentage of the information about the network structure. Their simulation results indicate that organization with high network horizon will occupy a strong bridging position. Network vision is about the network strategy and couldn't reveal the network cognition capability. However, both of them are about the cognition of network which will enable network related actions. Here we refer the network horizons construct and suggest that network horizon capability is the organization sensing opportunity and threats for exploration and exploitation through realized and potential network tie, structure and partner's attribute. Network exploitative capability means that organizational ability to exploit its prior network tie, structure position and partners' new resource to seize the opportunity. Network explorative capability means that organizational ability to explore new partners to extend or modify its current network to seize the opportunity.

CONCEPT MODEL AND PROPOSITIONS

Interaction of the Intra- and inter-organizational ambidexterity and performance

'The interplay between exploitation and exploration takes place both within and between organizations' (Holmqvist, 2004, p. 72). Consequently, the reciprocal relationship between exploitation and exploration may involve an extension process in which an organization 'extends its experience to others, for example, in a formal strategic alliance' or a process of internalization, wherein an organization 'internalizes experiences as retrieved in inter-organizational rules' (Holmqvist, 2004, p. 73). As with extension, internalization can be classified as opening-up, in which inter-organizational exploitation leads to intra-organizational exploration, or focusing, wherein inter-organizational exploration leads to intra-organizational exploitation (Holmqvist, 2004). It seems that inter-organizational ambidexterity is the substitution of the intra-organizational ambidexterity. In fact, there is an important difference that is the separation of value creation and value appropriation, which is related with service and ownership of exploration and exploitation. In the traditional RBV views, due to the potential hypothesis of the ownership of the resource, we needn't think about this problem because of the combination of value creation and value appropriation. The inter-organizational ambidexterity, which could achieve the balance across organizational boundary through network partners' exploration or exploitation, is challenged by this problem. Therefore, intra- and inter-organizational ambidexterity can not simply be viewed as substitution of each other and should consider other factors which moderate the relationship between organizational ambidexterity and performance. In this paper, we would like to focus on the interaction of intra- and inter-level.

Intra-organizational ambidexterity will enhance the inter-organizational ambidexterity, because internal sensing the internal opportunity and threat for exploration and exploitation will enhance its cognition base which enhances the sensing capability of inter-organizational ambidexterity. Conversely, inter-organizational ambidexterity will reinforce internal exploration or exploitation oriented because of the prior success and co-evolution lock-in with overembeddedness. We think inter-organizational ambidexterity could not foster intra-organizational ambidexterity for the organization dominated by exploitation or exploration; inter-organizational ambidexterity will reinforce the co-evolution lock-in and even hinder intra-organizational ambidexterity development due to the internal and external inertia. In the organization with intra-organizational ambidexterity, inter-organizational ambidexterity will make the organization change its internal balance of exploration and exploitation and focus on exploitation or exploration to enhance efficiency and keep adaptation at the same time. Intra-organizational ambidexterity also moderates the relationship between the inter-organizational ambidexterity and performance, because intra-organizational ability provides the common knowledge and capability base for communication that enhances the synchronous attainment and adaptation by breaking the co-evolution lock-in potentially.

Proposition 1: High organizational ambidexterity is positively related to organizational performance, especially for dynamic environment relative to stable environment.

Proposition 2: High intra-organizational ambidexterity is positively related to organizational performance, especially for long-term performance relative to inter-organizational ambidexterity.

Proposition 3: High inter-organizational ambidexterity is positively related to organizational performance, especially for short-term performance relative to relative to intra-organizational ambidexterity.

Proposition 4: High intra-organizational ambidexterity is positively related to inter-organizational ambidexterity and moderates the relationship between the inter-organizational ambidexterity and organizational performance.

Proposition 5: Intra-organizational ambidexterity positively moderates the relationship between inter-organizational ambidexterity and organizational performance, especially for long-term performance relative to short-term performance.

Network capability and Ambidexterity

Exploitation and exploration has different requirements in orchestrating network (Sigvald J.Harryson et.al, 2008). As Lavie and Rosenkopf (2006) disaggregated the exploration and exploitation into function, structure and attribute domains. And Ying Li et al. (2008) disaggregated that into science, technology and product-market function and cognitive, temporal and spatial dimensions, exploration requires knowledge-generating, prior partner with new resource investment and new partners with heterogeneous knowledge. Exploitation requires knowledge-leveraging, prior partners and new partners with similar knowledge to prior partners. Thus, inter-organizational ambidexterity is conditioned by organizational network capability through different domains. Some scholars reveal that exploration and exploitation benefits from organization's network characters, such as centrality and diversity. However, organization embedded network is dynamic and network requirement for intra- and inter-organizational ambidexterity is different. Therefore, organizational network capability influences the resource base of the ambidexterity through changing the network characters. Within network, dyadic relationships could be classified into four types in the light of content of collaboration as explorative, exponential, exploitative and experiential collaboration (Scott Motty et al., 2008). Therefore, organizations could orchestrate network ties portfolios to achieve inter-organizational ambidexterity.

Proposition 6: High network capability is positively related to organizational inter-organizational ambidexterity and intra-organization ambidexterity.

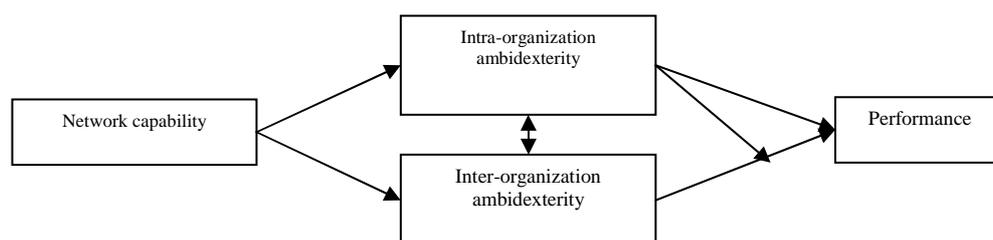


Figure 3 The integrated conceptual framework

DISCUSSION AND FUTURE RESEARCH IMPLICATIONS

The challenge of organizational ambidexterity is a crucial capability for management and research. Prior organizational ambidexterity research focuses on the MNCs and the antecedents, on the one hand. Ambidexterity still remains an under-theorized, under-conceptualized, and therefore, poorly understood phenomenon (Simsek, 2009). On the other hand, various disciplines about network dynamics and open innovation could be integrated and extend

current understanding about organizational ambidexterity. Therefore, further research could test the inter- and intra-level respective and joint effect on organizational performance and moderator such like absorptive capability and combinative capability. Also, we can introduce other factors, like network capability, which will influence organizational ambidexterity, and how to design the organization and capability evolutionary path.

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**CHALLENGES OF CULTURE TOURISM IN ALBANIA ECONOMIC RECESSION
CONDITION: CHALLENGES AND ADVANTAGES. A STRATEGIC MARKETING PLAN
AS IMPORTANT TOOL**

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Albania is a beautiful and fascinating country. It has a wide range of historic, cultural and natural attractions that are of the great interest to international tourist. The main aim of the paper is the assessment of the implementation of a Strategic Marketing Plan prepared for the WHS of Butrint as a Albanian 's major heritage attraction. I have structured the interviews conducted with the management of Butrint as well as other experts in the field, in order to collect the required information. Information required will be of qualitative nature. Two of the tools chosen to obtain the data required are the investigation of the secondary resources and the conduction of in depth interviews with management representatives of the attraction that I'm analyzing.

Key words: Cultural tourism, cultural attractions , Butrint destination

INTRODUCTION

Cultural Tourism is the most important part of the Albanian tourism product and successful element of the national economy. Albania is considered as a new cultural destination in the tourism marketplace, as a Balkan country of dramatic natural beauty, with a wealth of historic buildings and ancient archaeological sites that can compare, for interest and variety with any in the Mediterranean world. Analyzing Albania as a new destination in the tourism marketplace one can easily bring into light a series of disadvantages (i.e. poor quality of service such as electricity, water supply, and the perception of the country as an unstable and potentially dangerous destination). These, were a result of the historical and political circumstances. Albania has been through during the last century characterized by increased isolation, limited access to the country, economic and technological inertia, making it Europe's least-developed country. There are however many advantages (i.e. undiscovered natural beauty, proximity to established or growing markets) that increase the chances for Albania to attract visitors interested in a new destination and a new cultural experience. Attempts to project the country to the outside world began in the 1970s using classical heritage as an element of national identify. Thus heritage is represented today in Greek, Roman and later Byzantine archaeological wealth generated by Albanian lands due to its favorable geographical position in the Balkan in classical times as a key area for trade, agriculture and minerals. After a long period of instability, Albanian heritage is again being projected as an integral component of the country's reconstruction.

The country is safe, and its people are welcoming and friendly. Most importantly, is still "authentic". It remains largely unspoiled by foreign influence, people live and work in traditional ways in much of the country, and local culture expresses itself in every possible way on a regional basis- even town to town. The combination of these factors makes the country unique, and its potential value to international tourism markets very high.

WHY ALBANIAN CULTURAL TOURISM?

Albania has excellent tourism development potential. Many cultural resource attractions are of very high quality and would likely receive high levels of visitation if they were more widely publicized within target populations. More important for Albania, however, are the trends in tourism preferences. Culture is considered to be the fastest growing tourism markets worldwide. Tourism focused on independent tourists visiting local communities and participating actively in nature and culture activities has been shown to yield 5-10 times more development benefit than large-scale sun and sand tourism per dollar of tourist spending.

CASE STUDY OF BUTRINT – ALBANIAN’S MAJOR HERITAGE VISITOR ATTRACTION

Albania comprises an important amount of splendid archeological sites. Ottoman heritage, as well as a number of national parks bearing an outstanding natural beauty. Among others, it is worth mentioning the archaeological site a museum of Apollonia, which together with *Dyrrachium* makes two most important ancient Greek settlements in Albania. The citadels of Gjirokastra and Berat, characteristic of which are the beautiful mosques and churches that can be seen, whereas the domestic architecture of these two town are considered the best preserved examples of Ottoman towns of their period that have survived anywhere in the ex-imperial territories.

The national parks (Divjaka National Park, Lura National Park, Llogara National Park, etc.) established mainly after the World War II are in remote forest areas and comprise a remarkable variety of plants and some of the last refugees of rare animals and birds that have disappeared from other regions of Balkans.

Sitting in the south of Albania within region of Saranda, just across the straits of Corfu, the WHS of Butrint of Butrint National Park, is Albania’s main cultural and natural heritage site.

The importance of the site was recognized both nationally and internationally. This has been proved by the fact that the at times the site has received several designations which have significantly built up its image and attracted more visitors and specialists in the area. A collage of several evaluations made by the academia and public media prove not only the perception of the place by the people and the impression that the site leaves, but of the grandiose dimensions of the values that the site carries. Of the great classical sites of the Mediterranean, Butrint is the least known, the least frequented and the least spoiled. Visiting it today must be like visiting Ephesus or Baalbek a hundred years ago: nor car parks, no souvenir stalls, no sound but the sound of birds and the ever-buxy crickets. If you yearn to lose yourself in romantic meditation, alone among the ruins of a once-great city, then Butrint in the place for “Butrint is a magical place. In special atmosphere is created by a combination of archaeology and nature not found elsewhere in the Mediterranean. This is one of the great, largely unknown archaeological sites of Albania and of the whole Balkan Peninsula.

The Park is now the single most important tourist asset for the Saranda region and arguably for Albania as a whole. It has been recognized as a site of international and national importance for its wetlands, as an historic landscape important for the caliber of the archeology and as a focus for national and regional cultural identify. In addition, the Park has been identified as a place of national importance for education (over 25,000-school children visit the site each year) and an important local resource for farming and fishing activities”.

1948	“Cultural Monument”, designed under the first Albanian Cultural Monuments Act.
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1981	<i>“Protected woodland”, designated under the first Albanian Law on the “Protection of sites of environment importance”.</i>
1992	<i>UNESCO WHS, inscription by the WH Committee based on the cultural criterion .</i>
1997	<i>Inscription on the List of World Heritage in Danger by the World Heritage Committee.</i>
1999	<i>Butrint National Park was established by the Ministry of Culture</i>
2000	<i>Confirmation of the enlargement of the WHS site to 29 km2.</i>
2001	<i>An application for RAMSAR status was prepared in winter 2001.</i>

Table 1 Chronological list of national and international designation for Butrint.

An observation of the above “trophyies” shows that international recognition has increased significantly during the last decade. That is certainly a result of the opening of the country.

RESEARCH METHODOLOGY

The collection of the information for the research begins with defining the main aim and the objectives. The methods and tools chosen are going to be strongly depend on the aim and objectives. The research topic is presented in the form: “How is the implementation of A strategic Marketing Plan prepared for the WHS of Butrint evaluated from a management perspective?” This is lending to descriptive and inductive research. The next step of the research is related to the identification of the information needed, which includes management issues on heritage attractions, more specifically related to WHS-s. This information is about the strategic marketing plan that the attractions adopt and the assessment of the implementation of this plan. After concluding on the list of information and the sources, the next step is to decide on the techniques that will be used. So apart fro the existing data about Butrint, the primary information coolected through the opinion and knowledge of a group of experts in the field will be of large amounts which will then be interpreted by the researcher. Therefore, the methodology relies on secondary and primary information. Where qualitative data is to be collected, (the information collected using in –depth interviews) special interest must be given to how the results of the interviews will be analyzed. This remains the final stage of the research. The sample chosen by me to conduct the interviews includes mainly representatives of the site management of the as well as stakeholders that would be involved in the implementation, such as:

- Foreign consultants that have contributed in the field.
- Representatives of the Institute of Monuments and the Institute of the Archaeology.
- Local travel agent.

THE WHS OF BUTRINT, RESOURCES, GEOGRAPHIC LOCATION AND ACCESS

The WHS of Butrint or the Butrint National Park comprises an area of 29 km2 lying slightly inland from the east shore of the Straits of Corfu. It is Albania’s main cultural and natural heritage site lying in the Southern part of the country within the Saranda region about the 15 miles to the South of Saranda Port. It is located in a relatively unpopulated area close to the borders with Greece with less that 100 people living within its boundaries. Its closest villages are Shen Delli, Vrina Xarra and Ksamili with an estimated population of 5600 inhabitants. Its assets consist of mainly archaeological and natural resources bearing unique international

values. Encompassing a constellation of at least 10 archaeological sites within its boundaries the site illustrates a history of human occupation which dates back to the Middle Paleolithic period with intensive settlement from the 8th century BC onwards. Despite the significant changes and transformations of the landscape, low intensity of land use has preserved a wide range of species-rich habitats. The remarkable diversity of habitats Butrint National Park supports consists of woodland and scrub, dry habitats and wetland.

Main access to the site is made possible by the road that links Saranda with Butrint along the Ksamili thus making the Port of Saranda a main gateway for the majority of foreign visitors coming via Corfu (GR) is the main provider of visitors which come to the park remains whether a new road is constructed between Konispoli (the nearest border crossing point with the port of Igoumenitsa, inland Greece) and Saranda. That will probably shift the orientation of the park with the majority of the visitors entering from the south. That would avoid the major constraint of the cooperation with other similar sites in the region and improve communication with potential markets.

VISITORS AT BUTRINT

It is fact that Butrint makes Albania's major visitor attraction. Since late 1980s, day visitors from Corfu were taken to the site and soon made half of all Albania's foreign tourists in numerical terms.

The upward trend in visitor numbers dates back to early 90s when the fall of communism, the visitor numbers started to increase steadily. In 1996 the site attracted 20.000 visitors. Apart from a serious drop in numbers as a result of the civil unrest and the turbulent events in Albania and Balkans during 1997 and 1998, the visitor numbers built up again 23.000 by September 2001. In 2002 visitorship has surpassed 40.000, an increase of about 50% over 2001 and in 2005 visitorship has surpassed 100.000. It has only the last two years that data on the different types of visitor group using the Park has been gathered at its ticket office. Five visitor groups have been identified:

- Independent visitors (domestic)
- School and college groups (domestic),
- Coach parties (domestic),
- Day-trip groups from Corfu (foreign) and
- Independent visitors (foreign).

Each group has different visiting patterns and demands different things from the Park. (Martin 2002). From a careful observation of the percentage of each group against the total number of visitors one noticed that although the visitor number doubled from 2001 to 2002, the rapport of each group with the total number of visitors changed too. It is obvious that the school groups' number increased by less 5% of the total in relation to last year whereas the domestic visitors have increased by 2% more. There is a drop in foreign groups by 2% while, independent foreign visitors as well as undetermined (free) have increased by respectively (1+2) from 2001 to 2002 it still remains the dominating part of the market share. The identification of visitor's types for the WHS of Butrint is an important step towards the shaping and implementation of a strategic marketing plan and a marketing strategy option that the site might adopt in the future. It specifically relates to the process of market research as an initial operation undertaken by the marketing sector of every attraction organization.

<i>Nr.</i>	<i>Visitor Types</i>	<i>% of total visitors (2004)</i>	<i>% of total visitors (2005)</i>
1.	<i>School groups</i>	9	14
2.	<i>Domestic Groups</i>	48	46
3.	<i>Foreign Groups</i>	27	29
4.	<i>Foreign independent</i>	3	2
5.	<i>Undetermined (free)</i>	13	9

Table 2 Visitor types (percentage against the total number of visitors 2004, 2005)

CRITERIA THAT PLACED BUTRINT IN THE WH LIST

Based on the set of criteria provided earlier, the inscription of Butrint in the WH List was made after evaluating the site's assets from an international viewpoint. Therefore, Butrint was inscribed based on cultural criterion that bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared. Butrint has met the second set of criteria too. The archeological and natural resources have met the authenticity and integrity test. Such combination of archaeology and nature has given Butrint "a special spirit of place and authenticity". Although the natural resources have a great value due the remarkable diversity of habitats, the site is not recognized as a priority for conservation action or legislative protection. In response to the requirements of WHC, the preparation of the management plan for Butrint has been the last criterion to be met by the site. It has been written with the assistance of different interest groups and it aims to:

- Preserve the character and qualities of Butrint for future generations.
- Promote sustainable forms of agriculture, educational use and thereby contribute to the regional economy and country.
- Unite the local communities and interest groups involved with the park behind a single program of action.

It would be very narrow to say that Butrint Management Plan was prepared merely as a response to the requirements of the WHC. Its preparation was a necessity dictated by:

- The location of the site in a developing country that during the last decade had been through dramatic changes, and
- The increase of the threats defined as potentially endangering for the long-term survival of the site (and its designation)

These threats are clearly defined in the plan and include the collapse of management and funding structures, regional economic pressure, limited visitor capacity, uncontrolled development and theft. (Martin 2001)

STRATEGIC MARKETING PLAN FOR THE WHS OF BUTRINT

The following part of this section consists of the preparation of a long-term strategic marketing plan for the WHS of Butrint based on the information available. The whole process goes through the stages explained earlier in the research. The plan prepared is used as the subject around which in-depth interviews are developed and the primary information is collected.

IDENTIFYING THE NEEDS FOR THE ADOPTION OF A STRATEGIC MARKETING PLAN FOR THE WHS OF BUTRINT – AN ENVIRONMENTAL ANALYSIS

Among fifteen important objectives that the site management has identified in its Management Plan it is important to distinguish those of the Regional Development. A prior short-term action for the regional development objectives is the devising of a Marketing Strategy for the region. In fact, a marketing strategy is a tool that helps attractions achieve their goals and objectives set in a long-term strategic marketing plan therefore, the process of devising the marketing strategy remains a crucial phase of this plan and depends on the preparation of such a plan for the WHS of Butrint. However, this should not be considered as the only reason. Observing the site's situation carefully or, conducting an environmental analysis provides a more complete answer that justifies the adoption of the plan for Butrint.

The SWOT analysis prepared for the site helps to identify the main needs for the adoption of a strategic marketing plan for Butrint. Beginning with the analysis of the *external environment*, we must say that the site should not be considered as an isolated unit (attraction) within the region, the external environment has always influenced the developments in the site. During the 10 years, political instability has reigned in the country and the region of Saranda. This has been major generator of threats for the site. While the site itself is being developed slowly, cautiously and sensitively not the same can be said about the southern region of Saranda. There has been an absence of planned and managed urban development and uncontrolled tourism development especially in Ksamili and Saranda region. The development policy for the region intends to generate revenue based on tourism, which increases the dependency of the region on tourism.

There are in fact more opportunities for parallel development of other resources in the region. Under communism, Saranda encompassed a rich agricultural land that gave it district advantages over other districts. State-owned farms and agricultural cooperatives accounted for above 80% of the district's total production and that was heavily supported by the agro processing of the fish, canned food, a salt mine and a manufacturing base consisting primarily on handcrafts and carpet production. This uncontrolled development has brought uncontrolled demographic movements. The situation in Ksamili has been exacerbated by a further unflux of economic refugees from the north of Albania. This has been perceived as a major threat to the preservation of the ecological and archaeological resources of the area. The long isolation of the country from the rest of Europe and the World has cut the site off mass tourism and its negative impacts. At the same time, improvement of infrastructure and communication can bring this threat forward (see app.2).

At the same time the fact that Saranda, therefore Butrint too, is adjacent to well established regional markets, especially. Northern Greek destination such as Corfu and Epirus (inland Greece) with a mixed tourism product contributes to increased competition for the site as an attraction. In long-term a broader development of the Heritage Trail concept as part of a Partnership Programme will reduce this threat. At an organizational level, or else in the internal environment analysis it is important to consider that despite the wealthy resources that the site encompasses within its borders, only a limited number of products are sold for the moment. The valuable contribution of the foreign and national experts in management and marketing issues of the site accompanied by a lack in local capacity building. More specifically, although a local office, responsible for the safeguarding of the Park was created there is still a lack in visitor management skills and tools. This threat has become more evident since the increase in visitor numbers. Despite of the "soft" promoting policy adapted by the Butrint Foundation members at an international level, little has been done at regional and local level. The increase in foreign visitorship emphasizes the high dependency on foreign (mainly Greek) intermediaries

indicating at the same time the lack of local tour operators and of a marketing strategy. Consequently, there is a lack encouraging direct selling or control over the intermediaries.

SETTING THE AIM, GOALS AND OBJECTIVES OF THE STRATEGIC MARKETING PLAN

Prior to setting the aim, goals and objectives it is necessary to stress that they have to be turned in with the principal aims of the site development and management. Butrint Management Plan aims

- To preserve the character and qualities of Butrint for future generations.
- To promote sustainable forms of agricultural, educational use and tourism in and around the Park and thereby contribute to the regional economy and the community.
- To unite the local communities and interest groups involved with the park behind a single programme of action.
- To meet the needs of the existing visitors to the Park and bring the local communities into the process of development, by focusing facilities in their villages.

From the viewpoint of modern (societal) marketing the strategic marketing plan will contribute to a sustainable use of the resources, increased capacity, healthy local economy and happy visitors. Relying on the above aims the mission for the proposed plan can be: Support the development of cultural tourism as a form of sustainable tourism in order to assist in building a socially harmonious local economy.

Main goals that derive from this mission range as follows:

- Increase numbers of cultural visitors in the site.
- Minimize marketing costs by increasing the numbers of repeated visitors.
- Generate income from for the WHS of Butrint and the region.
- Regenerate culture and arts a crucial element that provide competitive advantage.
- Support local initiatives that provide authentic cultural products/experiences.
- Improve the set of communication tools especially interpretation and education.

The above goals can be converted into more detailed objectives that may be:

- Set up a regular daily basis inventory of the site visitors based on ticket counting.
- Involve staff at the entrance (a visitor information unit) aiming to identify the visitor types on basic of motivation, their requirements, their impressions and suggestions.
- Undertake a regional market research in order to identify potential cultural visitors and the product offered by other regional attractions.
- Identify authentic cultural assets (resources) in the surrounding area of Butrint.
- Formulate new products by allocating these assets in culturally unique experiences/products.
- Apply for financial support that would help start any local initiative for the creation of Park's exclusive products or services (i.e. souvenir productions with Park's logo, etc).
- Design a variety of locally based tours that would include a night stay in local houses.

- Increase the number of cultural tourists at the site through the promotion of these cultural experiences/products (i.e. local events celebrated in the area) within and out of the park area especially to potential domestic market.
- Improve the use of communication tools that could reach targeted cultural customers (i.e. marketing, education, interpretation).
- Use communication tools for the locals, looking at them as important recipient and transmitters of these messages.
- Increase the awareness of the locals about the cultural and natural wealth and uniqueness of the area.

The reasons of choosing cultural tourism for Butrint are many however, among the most important we can mention:

1. Cultural tourism is experiencing an upward trend worldwide. Of all tourist trips 37% accounts for cultural tourism and the demand is growing by 15% tourist trips per annum. So about 70% of all Americans traveling to Europe seek a cultural heritage experience.
2. The WHS of Butrint would prove successful in this market due to its cultural wealth varying from well-presented archaeological remains proving that the site has been alive for over 2000 years with a history that stretches from Hellenistic and Roman periods through Byzantine and Venetian to the time of Ali Pasha. The area encompasses Ancient, Ottoman, Communist history, transition to democracy as well as historical figures and travelers (i.e. lord Byron, Edward Lear, Ali Pasha etc) to traditional culture of the villages in the surrounding area of the site especially villages along the south and eastern border of the WHS of Butrint, which are older and distinguish on basis of authenticity and cultural identify. These villages are considered a potential support for a traditional village-based cultural tourism (i.e. producing handicrafts, offering traditional lodging, developing mini folkloric festivals etc).

However, the possession of the assets is not enough. It requires organized efforts made by professional people to recognize the cultural visitors and their requirements, design the appropriate products (experiences) that meet these requirements and approach them using the most efficient communication tools.

DEVISING THE MARKETING STRATEGY MODEL

In a customer led marketing area knowing more about the customers (visitors) helps market sites more efficiently.

The above aim, goals and objectives chosen in harmony with the wider goals and objectives of Butrint dictate at the same time the adoption of this strategic option. The marketing strategy option proposed will not aim at selling the site products (activities) but will try to approach 'niche' markets proactively by using special products that will meet demands of global tourists search for the authentic experience.

Therefore, this strategy will develop in three main directions:

- Identify market segments among the existing visitors at Butrint that are motivated by culture in their traveling decisions.

- Create unique cultural experiences by integrating products and services based on local resources that would provide Butrint a competitive advantage as a cultural destination in the Mediterranean.
- Prepare an educational and interpretative set of communication tools that would help the site promote its activities towards the targeted visitors and at the same time improve awareness of the locals.

It is clear that the strategic option selected involved the locals in the implementation process not only by appreciating the products they offer but, considering them an important target where to the management can send its messages, be they of conservational or promoting nature in relation to Butrint properties. Therefore, a major conclusion drawn at this point is that the implementation of the strategy will heavily depend on two very important elements of the mix, promotion and people.

WHY A VISITOR-LED STRATEGY?

The changing nature of customers has placed increased demand upon destinations. The new tourist is no longer satisfied with a passive experience. He is seeking instead authenticity at destinations with a view to understanding the indigenous culture, history and environment, how local people live and work. Such a strategic option for the WHS of Butrint not only considers the trends in the successful management of the site but also encourages the involvement of visitors and locals in the process of product formulation and delivery.

As said above the marketing strategy chosen does not aim primarily at selling Butrint or its products/experiences to visitors but formulate a product after having discovered what visitors would like to experience through it.

Cultural tourists defined as people that intend to visit a cultural tourism attraction; art gallery; museum or historic site; attend a performance or festival; or participate in a wide range of other activities at any time during the trip; regardless of their main reason of traveling (Mc Kercher 2002), has nowadays become the focal segment for many attractions. Although the WHS of Butrint may attract culturally motivated visitors due to the possession of the necessary resources, this is not enough to develop cultural tourism at the site successfully.

The reasons of adopting a proactive visitors led strategy are many however, it is worth mentioning the fact that:

- The development of high prestige cultural tourism can be only achieved by maintaining a highly satisfactory visitor experience.
- The competition in the marketplace is won only after choosing the right ways of approaching the visitors.
- Less price sensitive segment require a special experience and this is initially achieved by the adoption of a visitors led strategic approach which if successful provides high income levels; increased awareness about preservation and conservation; repeated visits and once defined this visitors are easily targeted therefore the marketing cost for this market reduces.

Concentration of the management efforts in the specific strategic direction will certainly prove more productive and will help coordinate their actions.

THE CRITERIA OF EVALUATING THE IMPLEMENTATION OF THE STRATEGIC MARKETING PLAN FOR THE MANAGEMENT OF THE WHS OF BUTRINT

It is important to understand that the implementation of the long-term plan will be made only after converting it in short tactical one-year plans each of them will fulfill some of the goals and objectives set earlier. However, management should not start immediately implementing it. Even in cases when the management is convinced that the plan provides the way to success, there is still a very important phase to be considered, that of the evaluation of the implementation of this plan. Within this frame, a set of criteria on basis of which each attraction makes the evaluation is set. In the case of Butrint it would be recommendable to make this assessment by looking at main constraints and implications that derive from the resources needed to implement the strategic marketing plan.

As with any other organization, these resources are divided in financial, human and physical and are related to the organizational performance of Butrint. However, the management considers other criteria related to the external environment. One of them is the flexibility of the plan to adapt to sudden changes in the business environment.

Taking the above-motioned criteria separately we can convert

- The financial resources into the budget available to implement the plan.
- The human resources into the strength and weaknesses of the marketing staff including their training, experience and attitude. It is important to understand that this criterion encompasses staff from all the levels of the managerial hierarchy, marketing managers dealing managers dealing with decision-making and those that deal with day-to-day marketing.
- The physical resources usually consist of the equipment and building required (i.e. visitor information units set in and out of the park area, office, souvenir display units within the site, etc).

The set of criteria is wider than what we offer so as additional ones we can mention:

- The size of WHS of Butrint as an attraction organization.
- The time of the implementation of this plan.
- The actions of competitors.
- Elements of the mix used to implement the strategy selected.

We can explain that the size of the attraction reflects its marketing organization and consequently the performance in terms of implementing e plan. Strategic marketing plans cover a long-term period stretching in a time length of 5 years. These plans usually apply for large attraction organizations. A long-term plan for the management; therefore, the size of the organization and the timescale of the plan are important for the evaluation of the implementation of this plan.

External environment criteria are also the actions of competitors as a source of benefits or implications for this plan.

Other elements of the mix such as price, product, promotion etc, are considered in the evaluation process.

CONCLUSIONS

Albania as a country that has recently opened to the world is considering tourism an important activity that will contribute to the country's reconstruction. In this frame, Albanian heritage has been projected as an integral part of the country's reconstruction. Butrint is considered the most important among other attractions of Albania and its values have been recognized in a national and international level.

Apart from the political instability that the country has experienced during the last decade, Butrint has attracted a dominant number of visitors compared to the total of visitors that have entered Albania. This was dedicated to the cultural and natural resources that gave the site a series of designations, its favorable geographic location and the job done to project it in the marketplace.

The designations mentioned carry as many responsibilities for the management of Butrint, as prestige for the site. One of the primary needs that derive from this point is the formulation of a management plan that will guide the sustainable development of the Butrint. Consequently, the preparation of strategic plans for all the management aspects will be the next step toward success for the site. The Strategic Marketing Plan presented in our case carries the mission, goals and objectives for the marketing management of Butrint.

Although the plan may be well prepared, that is, its mission goals and objectives may be chosen in harmony with the main objectives of the site, an environmental analysis may have been conducted, a marketing strategy may have been selected, a monitoring system may have been installed, there is still a very important phase that the management always considers. This phase is the assessment of the implementation of this plan made by the management of attractions prior to adopting it. This paper provides the assessment criteria that are used in these cases usually divided in criteria related to the sites as organizations and criteria related to their external environment.

On basis of these criteria, I have structured the interviews conducted with the management of Butrint as well as other experts in the field, in order to collect the required information.

Albania must be sold on international markets as Albania. Albania does not have strong enough assets for its central marketing position to be either geographically – based (South versus North coast) or thematically –based alone (cultural monuments, etc).

Albania's core (primary) tourism product must be a general one that encourages visitors to discover the many facets of Albania's culture.

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A RESOURCE-BASED VIEW THEORY OF THE NATION BASED ON THE RESOURCE SEEKING ACTIVITIES IN THE OIL INDUSTRY

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INTRODUCTION

This is a work in progress and part of a research that attempts to evaluate the resource seeking activities of oil consumer nations in targeted oil producer nations and correlate these activities into a broader theme of a resource based view of the nation.

We attempt to view these activities of nations from three different lenses: the first is from the traditional views on International Business and the national competitiveness; the second is from the resource-based view theory of strategic management and thirdly, we look at the geopolitical strategies of nations seeking energy security. By integrating these three theoretical strands, we intend to provide an integrated approach that will help businesses understand how the political strategies of a few nations seeking to control and manage the supply and deployment of resources either as 'resource owners, or 'resource seekers', affects the wider world of politics and global business.

History has shown that nations have for ages competed to control 'resources'. This can be done through the process of creating colonies as in the case of Britain and other western European powers or by the more recent and subtle form of 'neo-globalisation'. Nations like the US have used military capabilities to control resources as seen in Iraq while others like the oil producer nations have used reserves of sovereign funds to buy into assets in other countries. A common strand among these nations is the need to secure resources or to ensure that existing resources or capabilities remain sustainable sources of advantage for the future as well.

The oil industry on which this research focuses has been the scene in the recent past for several of these nation specific and resource driven strategic tactics. A survey of media reports has yielded support for this perspective, showing energy hungry countries seeking to parley with pariah nations like Sudan and Iran in return for supply of Crude oil, leading the researchers to assume that there was potential in exploring this aspect of Business. A very recent occurrence has been the use of Military force by Russia to ensure that control of the Caspian Sea pipeline remained within Russia as well as the well documented War in Iraq. Another addition has been the release of a Libyan national to serve the wider interests of British business interests in Libya.

The research aims to demonstrate how nations aim to expand their national competitive advantage by actively and selectively building their national resource base, using sovereign funds and heavy subsidies to motivate and facilitate the international expansion of their domestic firms at the expense of other competitors. Our findings are expected to be integrated into a new integrative framework that will help to understand why some nations behave as firms or a 'resource based view of the nation' as an extension to the 'resource based view of the firm'

This paper specifically looks at the energy seeking activities of India and China, two of the world biggest consumers as well as its largest economies. The focus on the oil industry is meant to narrow down the scope of the study as well to be able to collect sufficient data since oil has emerged as one of the most valuable resources, nations are trying to secure in order to strengthen their economic and geopolitical sphere of influence

We feel that with nations like India and China emerging as large consumers of Oil and rivalling the demand of historical consuming economies like western Europe, the US and Japan, it seems quite logical to study the resource driven business strategies of oil consuming nations and the investment by Oil producers in strategic economies of which some are effectively net oil consumers.

THE OIL INDUSTRY AS A FOCAL POINT FOR THE RESEARCH

The Oil industry is taken as a central focus as it sustains global economy, supplies over 35% of the total energy demand of the world and is also heavily globalised with over 60% of the production being traded in International markets (Gupta, 2008). It is also a fertile ground to test the propositions as producer nations earn sufficient budget surplus that are deployed in other nations as 'resource seeking' FDI as most producer nations lack economies that can support infusions of these budget surplus.

We use here the argument of Barney(1997) 'Do a firm's resources and capabilities add value by enabling it exploit opportunities and/or neutralize threats', to the oil industry and substitute the unit of consideration as the 'nation' instead of the 'firm'. Considering oil price fluctuations and the clamour for alternative fuels, Oil producer nations would need to be looking at creating a more sustained value for their resources in the event that it becomes price sensitive in the future and loses value. One way would be to deploy this monetary advantage of their resource into new emerging economies or by diversifying their investment portfolio across existing nations or diversifying their asset base. In the case of the oil producers, all nations have the same competitive advantage of possessing oil resources and cannot claim an exclusive or an inimitable advantage except perhaps for Saudi Arabia in terms of the sheer volumes of production it controls. In this scenario, we then suggest that these producer nations compete across a wide spectrum of International activities and invest in other nations in a bid to differentiate themselves. Some of this take the form of sovereign fund investments in other oil consumer nations.

Another aspect of our interest in the Oil industry is the unequal distribution of oil resources. North America, Asia-Pacific, and Europe, have only 10% of world's reserves but account for about 78.6% of the demand. Similarly, other producer nations in Middle East, Russia and other former soviet republics and Africa consume only 15.5% of the total world demand, but possess over 81.3% of the total world reserves(Gupta, 2008), making this nations a scene for political and strategic tactics by nations that seek to access their resources. India and China as a result of their growing demand for oil have been seen to engage in a resource driven international trade strategy.

INDIA AND CHINA AS MAJOR 'RESOURCES SEEKERS'

The research attempts to explore the specific actions of India and China within the oil industry as they engage in capability building and developing national competitive advantage. In this approach, the analysis of the data gathered is expected to lead to the formulation of a theory based on the observations of the relationships between the patterns of the activities in specific nations by these nations. A correlation to the geopolitical strategies provide an insight

into understanding the rationale of nations seeking to invest in specific economies apart from the pure economical reasons of FDI in existing literature Dellios (2003).

India and China are amongst the world's biggest consumers of oil and yet are heavily dependent on other nations. China imports about 50% of its requirements and India about 70% making a search for oil resource, of utmost concern to this nations (Khanna, 2007). This has led to energy companies of both countries investing in several nations. Khanna (2007) substantiates his argument that India and China are resource rivals with the following evidences.

- China's economic rise threatens India, which trails its neighbor on almost every conventional socioeconomic indicator.
- Both nations have a growing appetite for natural resources such as oil, coal, and iron ore, for which they compete fiercely.
- Both nations fight for capital, especially for investments by multinational companies from North America, Europe, and Japan
- Between January and October 2005, China's Sinopec and China National Petroleum Corporation (CNPC) and India's Oil and Natural Gas Corporation (ONGC) clashed over purchases of oil assets in other producer nations like Angola, Ecuador, Kazakhstan, Myanmar, Nigeria, and Russia
- China won many contracts in these nations but at a higher price due to India's aggressive bidding wars over the same assets.

Apart from being rivals, India and China are also collaborators in sharing their capabilities in seeking oil resources as the following evidences from Khanna (2007) will show.

- In December 2005, China's CNPC and India ONGC won a bid for a joint 37% stake in Syria's Al Furat Petroleum
- A Joint venture between Sinopec(China) and ONGC(India) won a 50% stake in the Colombian oil company Omimex de Colombia in August 2006.
- In April 2007, ONGC and CNPC agreed to team up to acquire oil assets in Angola and Venezuela

Khanna(2007) suggests a possible reason for this collaboration in Oil procurement was that China was hoping to get preferential bidding rights for infrastructure projects in India leading to the argument that we are witnessing a new era of international business driven by resource seeking.

RESEARCH OBJECTIVES

The specific objectives of the study are as follows:

- To critically analyze the current international strategic business environment in relation to oil production and consumption using information available in the public domain as well as from primary data from key respondents.
- To seek patterns of flow of foreign direct investment and sovereign funds deployment by oil producing countries in selected and targeted oil consuming countries and vice versa.
- To investigate the development of strategic groupings of firms in certain industries in these countries that are related to the oil production and consumption that create or influence entry barriers for other countries into growth areas of world trade.

- To analyse the extent to which a large percentage of the global FDI is politically motivated by oil producer countries seeking to invest in strategic economies to secure their future from threats related to anticipated changes and that recipients of FDI are consuming countries seeking to secure energy security for their needs.

REVIEW OF EXISTING LITERATURE

The Initial review of the existing literature has showed that IB (International Business) and Strategic Management research activities are mostly based on the assumption that firms compete within market conditions where the nature of the industry as well as resource bundles or capabilities of firms create a sustainable advantage. According to Lippman and Rumelt (2003), many theoretical researchers in competitive strategy have remained in standard neoclassical microeconomics. However, Mehra (1996) argues that analysis of competition remains one of the most important aspects of Strategic Management and IB. The market based research focus of strategic management seem to be centred along the industrial economics approach (McWilliams and Smart, 1993), the resources based approach (Penrose, 1959; Barney, 1991; Teece et al., 1997; Armstrong and Shimizu, 2007; Newbert, 2007; Connell, 2008) or the fairly new institutional view (Peng et al., 2008). In the bulk of literature reviewed on the non-market environment, we find that apart from occasional articles in strategy and IB, the majority of most recent research is in the sphere of political or political economic studies (Buckley, 1991; Dahan, 2005; Connell, 2008).

This leads us to infer that existing research has focused on the nature of the firm, the associated industry conditions and the effect of market forces affecting the 'firm'. There has been limited research on the whole 'nation' as a unit of analysis although we have seen studies partly addressing the topic like the work of Porter on the competitive advantages of nations (Porter, 1981), the notion of locational advantage of Dunning (1988), several studies on the competitiveness of industry clusters within nations or the competitive advantage of nations, (Rugman and Verbeke, 2002). In addition, an integrated approach using the schools of thought from both strategic management and political studies seem relevant and this found resonance in the work of Yamakawa et al. (2008) who have called for an integrated view of industry view of firms, the resource based view as well as the role of institutions. The need for further research in this direction has been reiterated by John Dunning at the AIB 2008 Annual Conference in Milan, where he made a call for more research on resource seeking strategies of Nations.

This justifies the rationale for this study, where we attempt to follow an integrative approach to the notion of nations selectively creating and deploying resource-capabilities bundles across borders in order to improve national competitive advantages. We would argue on the lines of Önsel et al. (2008) that the capability of firms to survive in the global markets with a competitive advantage is partly dependent of the role of national institutions and its political and economic actions. In addition, we also consider the Institution based view of Peng et al. (2008) who argue that institutional environments are the focal point for firms seeking sources of competitive advantage. This view is also supported by Connell (2008) who views the government as a major source of firm level competitive advantage.

PROPOSED METHODOLOGY

As mentioned before this is a research in progress. For the scope of this paper we will make use of existing secondary data from media reports, journals and several databases like Lexis Nexis, Reuters and JODI, with the objective to demonstrate that the actions of both India and China in their quest for Energy Security has sufficient elements to prove that nations are

moving towards a resource based approach in building up national competitiveness. Such an approach seems appropriate given that nations are now seen as competitors in international business (Dunning, 1997).

The intended methodology for the overall research is as follows: The underlying idea of the research is to identify whether FDI by oil exporting countries and by oil importing countries are influenced by their resource endowment. From quantitative analysis perspective, this involves first of all clustering the oil exporting countries into different groups that exhibit similar properties. A multivariate cluster analysis technique is deployed in order to identify different clusters. Under the assumption that number of groups is unknown, the researcher proposes clustering using hierarchical method with agglomerative steps. In other words, as a first step each sample point is considered as single cluster and then these clusters are grouped according to the proximity of these clusters.

Once different groups of oil exporting countries are identified, then the next step would entail reducing the number of factors to those that significantly influence the FDI pattern of each cluster. This essentially means using Principal Component Analysis (PCA) to reduce the dimension without compromising much on the variability of the data. The choice over here is whether the researcher uses neural networking technique (NN) for PCA or not. Whilst the NN has advantage of better out of sample performance, the restriction of larger sample size in order to ensure that the networks are well trained and therefore results are not biased would influence the decision of deploying NN or not. Finally, after having identified the variables that significantly influence the behaviour of Oil Exporting countries, the researcher finally would perform the regression analysis to verify the hypothesis that a large percentage of global FDI is motivated by oil producer countries to secure their future from threats related to anticipated changes. However, since the researcher hypothesises that the recipients of FDI are consuming countries seeking to secure energy security needs, it would be worthwhile to verify the factors influencing the oil importing countries simultaneously. Consequently, the researcher at this stage is in favour of deploying Simultaneous Equation Model as opposed to Single Equation Model. Further, in order to check the sanctity of clustering technique, the researcher proposes to first run the simultaneous equation models for different clusters and then run for the pooled data. Alternatively the researcher could run a single set of simultaneous equation model with further dummy variables in order to distinguish between different clusters of countries.

THE POTENTIAL CONTRIBUTION TO KNOWLEDGE FROM THIS RESEARCH

The thesis aims to provide an insight into the body of knowledge within the the resources driven approach of nations. It is hoped that this focus would conceptualise and develop an academic view of a global business environment driven by the market influencing mechanisms of resource seeking nations along with that of resource owning nations within the confines of two broad areas of management research; International Business and Strategy.

There are differing views on how to view each of the aspects that affect a firm. The industry based view of the firm based on the Industrial Economics (IO) approach, (Porter, 1981) which argues that Industry conditions acts upon the performance of a firm. The Industry view looks at more external aspects of the factors that affects a firm while or the Resource Based view that argues that it is the resources bundles or combinations of resources that create competitive advantage (Barney, 1991, Teece et al., 1997). In addition, there is a growing momentum for the Institution based view that looks at institutional environments as the focal point for firms sources of competitive advantage. A significant contribution here is the work of (Peng et al., 2008) who argue that an institution based view of International Business has arrived and calls it,

the third leg of the tripod of strategy, the first being Industry View and the second resources based view. To this can be added, the views of (Connell, 2008) who views the Government as a major source of firm level advantage.

International Business with its emphasis on international trade, patterns of FDI flow, the role of MNCs and Transnational Companies as well as the role of the Business Environment has also concentrated in using the firm as the unit of analysis instead of the nation although there are sufficient studies on the factor endowments of a nation as well as the role FDI plays on country competitiveness

In International Business, a review of the literature has shown a dearth of information on the Empirical support for the notion that International Business Strategies are affected by political resource driven strategies of nations and there is the perception that most of the knowledge available has been compartmentalised with individual silos from where there is a lack of cross pollination which is necessary for an integrated approach to global business strategies. Politics and its effects on International Business still suffer from being under researched although Politics has generated vast amounts of information form Political Scientists. Given that in today's world, we are closer to understanding and acting upon information of the effects of this kind information on Global Business Environment, It is felt that we need to integrate both stream of knowledge. Figure 1 below is an attempt to illustrate that.

Although Research in international business has more focus on the political aspects than Strategic Management with some studies explaining the role of Government as a variable that influences International business strategies, it still considered to be a growing body of research(Boddewyn and Brewer, 1994).The interest in the External Political environment has been of little interest to academics when compared to that of internal organizational politics. These authors also quote the fact that other social sciences have well researched politics and its effects especially the works of (Epstein, 1980, Keim, 1988) and that the application of this information to IB theory is limited.

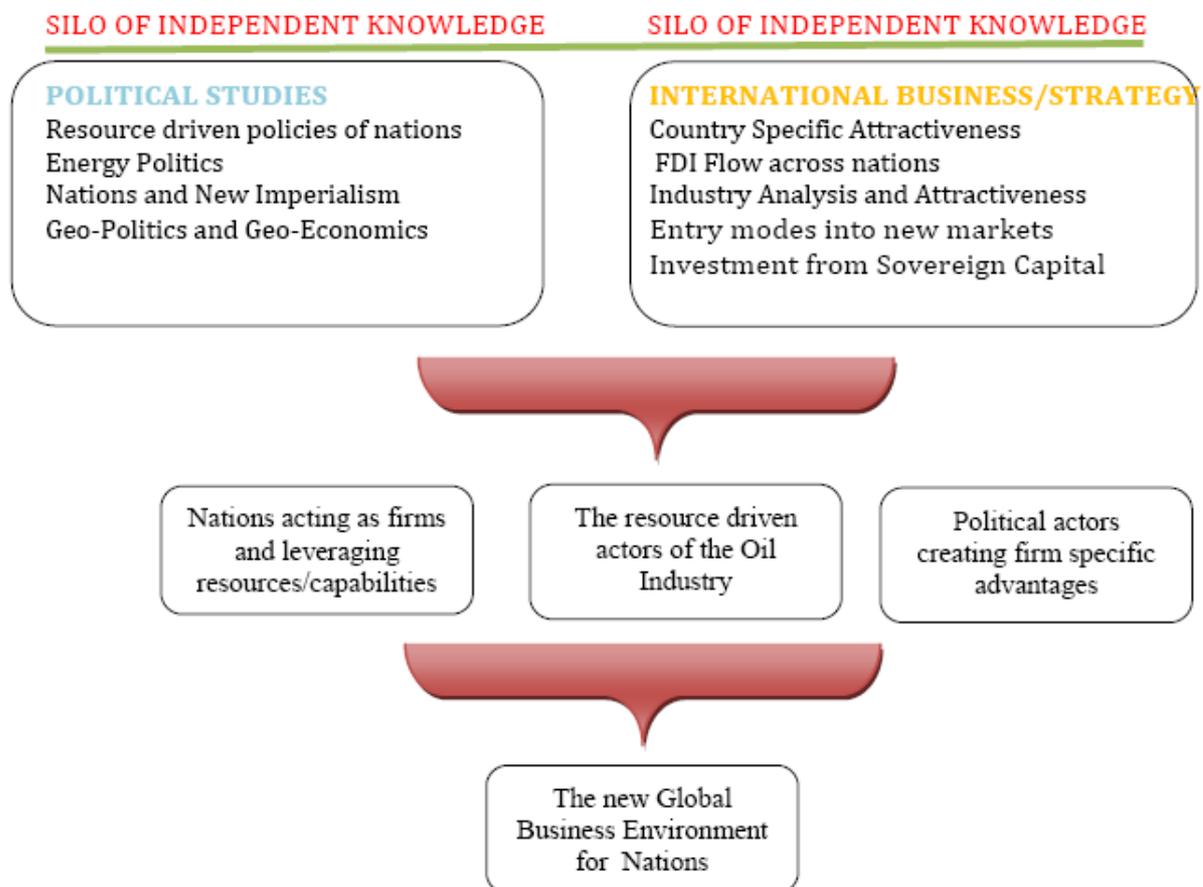


Figure 1. Showing the Compartmentalisation of Knowledge in relation to the Political Strategies of Nations

CONCLUSIONS

In this view, we hope that our results will help in better understanding government and policy decisions in the areas of International Trade and Business. The analysis from the findings would be useful to MNCs or TNCs that seek to understand the implications of institutional actors on international expansion as well as market entry strategies into specific countries and industries where a resource based political alignment is seen to play an important role.

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EMBRACING A HUMAN FACTORS' ONTOLOGY IN THE ECOMMERCE CONTEXT

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This paper¹¹⁵ focuses on integrating theories of individual differences in information processing within the context of eCommerce Web-sites. Accordingly, a design of a human factors' ontology has been proposed, called UPPC (User Perceptual Preference Characteristics), and could be used in any Web-based application for returning an optimized adaptive result to the user. An existing commercial Web-site was filtered through an adaptive mechanism based on that ontology. This mechanism is described by a proposed Web browser extension set of custom xml tags for the imminent automatic transformation and enhancement of the Web-based content. The expected impact of the content reconstruction lies in the increase of users' satisfaction and efficiency of information processing (both in terms of accuracy and task completion time), while users navigating in the personalized condition rather than the original one.

INTRODUCTION

Advances in Web-based oriented technologies and services are taking place with a considerable speed around the world. As communications and IT usage become an integral part of many people's lives and the available products and services become more varied and sophisticated, users expect to be able to personalize a service to meet their individual needs and preferences.

Due to the heterogeneous users' needs and requirements, user profiling could be considered as a successful step towards the identification and collection of users' preferences. However, there are some crucial issues that should be further investigated and analyzed, such as whether user profiles could nowadays be considered complete, and more extensively whether all the vital parameters of users' characteristics are taken into account in order for the Web-based systems to provide users with the most user-centric result.

In recent years, there has been a rapid growth in research and experiments that work on personalizing computer-mediated platforms, according to user needs and indeed, the challenges ranging in this area are not few. In this respect, an objective is to design an expressive ontology that is composed of human factors that can be used in any hypertext

¹¹⁵ *The project is co-funded by the EU project CONET (INFSO-ICT-224053) and by the Cyprus Research Foundation under the project MELCO (TPE/OP120/0308 (BIE)/14).*

computer-mediated application. Based on that ontology, engineers will design and develop personalized and adaptive interfaces. This will enable easy access to any content while being sufficiently flexible to handle changes in users' context, perception and available resources, optimizing the content delivery while increasing their comprehension capabilities and satisfaction.

Therefore, this paper describes a human factors' ontology, called UPPC (User Perceptual Preference Characteristics) that could be used in any hypertext computer-mediated application for returning an optimized adaptive result to the user. It further analyzes the main intrinsic users' characteristics like visual and cognitive processing parameters that together tend to give the most optimized, adapted and personalized result. In the remainder of the paper an adaptation paradigm of an existing commercial Web-site is presented. The Web-site's content was filtered through an adaptive mechanism based on the UPPC Ontology. This mechanism is described by a proposed Web browser extension set of custom xml tags for the imminent dynamic transformation and enhancement of the Web-based content. An evaluation of the expected impact of the content reconstruction concludes the paper.

PROPOSING A HUMAN FACTORS ONTOLOGY

The proposed human factors ontology is based on the theoretical conceptualization of a comprehensive model in the field of Web personalization and adaptation, which integrates cognitive parameters and attempts to apply them on a Web-based environment. The particular cognitive concepts have already been proposed by the authors and positively evaluated in the information space (Germanakos et al., 2007, Germanakos et al., 2008). This ontology consists of an optimized series of these parameters and tends to further enhance the current user profiles (considered the main filtering elements for Web personalization systems), that could be used in any hypertext computer-mediated platform in order to return a more enhanced user-centric result by reconstructing (adapting) any content coming from the provider.

Our purpose is to improve learning performance in terms of information assimilation and comprehension capabilities and, most importantly, to personalize Web content to users' needs and preferences, eradicating known difficulties that occur in traditional methods. Such an approach may be proved to be very useful in assisting and facilitating a user to understand better Web content and therefore increase his / her satisfaction and navigation performance.

Theoretical Implications of the UPPC Ontology

The theoretical implications of the proposed ontology constitute an enhancement / component of the user profile, called User Perceptual Preference Characteristics (UPPC). The UPPC theoretical model formulates a three-dimensional approach to the problem of building a user profile determining these mental, cognitive and emotional factors that take place throughout the whole process of accepting an object of perception (stimulus) until the comprehensive response to it (Germanakos et al., 2008). The first dimension investigates users' cognitive style, the second their visual and cognitive processing efficiency, while the third captures their emotional processing during the interaction process with the information space (Germanakos et al., 2007).

For the scope of this paper, only the cognitive styles and the working memory span of the UPPC model are considered. Our primary objective is to identify the main impact of these characteristics in the information space, and specific content meta-characteristics, and to give a semantic description of these dimensions in the UPPC theoretical model utilized by the proposed ontology.

Cognitive styles represent an individual's typical or habitual mode of problem solving, thinking, perceiving or remembering, and "are considered to be trait-like, relatively stable characteristics of individuals, whereas learning strategies are more state-driven..." (McKay, 2003). Among the proposed cognitive style typologies (Cassidy, 2004) we favor Riding's Cognitive Style Analysis (Riding, 2001), because we consider that its implications can be mapped on the information space more precisely, since it is consisted of two distinct scales that respond to different aspects of the Web. The Imager / Verbalizer axis affects the way information is presented, whilst the Wholist / Analyst dimension is relevant to the structure of the information and the navigational path of the user. Moreover, it is a very inclusive theory that is derived from a number of pre-existing theories that were recapitulated into these two axes.

Working memory span refers to the processes that enable a person to hold information in an active state while integrating it with other information until the current problem is solved.

We measure each individual's ability to perform working memory tasks based on the Visio spatial sketch pad sub-component (Baddeley, 1992), since all information in the Web is mainly visual.

The UPPC Ontology

Based on the abovementioned considerations, findings and the described cognitive characteristics we hereafter depict (Fig. 1) at a high level point of view the UPPC ontology that uses the main elements of the human factors conceptualization.

The main uses of this ontology are: 1) to enable consistent implementation (and interoperation) of all hypertext computer-mediated systems that use human factors as their main filtering element, based on a shared background vocabulary, and 2) to play the role of a domain ontology that encompasses the core human factors elements for hypertext computer-mediated systems and that can be extended by any other individual or group.

The semantics behind the ontology (Fig. 1) are depicted in Table 1. The user entity in the ontology (Fig. 1) is the main entity. Specializations of the user are the Cognitive Styles and the Working Memory.

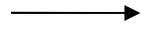
<i>Ontology figures</i>	<i>Semantics</i>
	<i>Entity / Class</i>
	<i>Specialization</i>
	<i>Binary relation</i>
	<i>Total constraint (at least one)</i>
	<i>Mandatory constraint</i>
<i>{ n }</i>	<i>Value constraint</i>

Table 1. Semantics of the Ontology

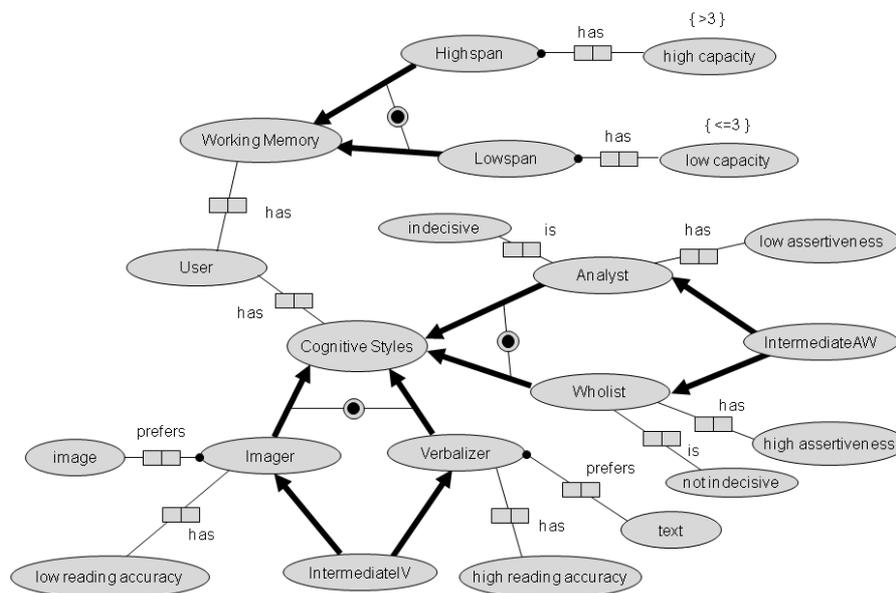


Fig. 1. User Perceptual Preference Characteristics Ontology (represented using the ORM graphical notation (Lukichev and Jarrar, 2009))

Cognitive Styles is distinguished between Imager, Verbalizer, Wholist and Analyst. The Imager prefers image and has low reading accuracy. On the other hand, the Verbalizer prefers text and has high reading accuracy. The Analyst has low assertiveness and is indecisive. The Wholist has high assertiveness and is not indecisive.

Working Memory is distinguished between Highspan and Lowspan. The Highspan and the Lowspan entity have high and low working memory span capacity, respectively.

Even though the evaluation of the UPPC ontology's concept in the eCommerce domain, described in section 5, is really encouraging for the validity and integrity of the relation within and between these cognitive dimensions and their effective impact in the information space, this ontology can only be considered as a proposal. Main goal is to initiate and drive this research to a concrete human factors ontology that can be used in any hypertext computer-mediated system enhancing one-to-one services delivery based on an efficient user-centric dynamic content reconstruction (adaptation).

WEB CONTENT TRANSFORMATION BASED ON THE UPPC ONTOLOGY

As mentioned in previous sections the given UPPC ontology's cognitive dimensions have a specific influence into the information space and to specific structural content meta-characteristics. Based on this impact, we hereafter introduce a method of transforming and adapting Web-based content into users' unique characteristics. The validation and accuracy of the content transformation based in this ontology has been achieved with the use of an innovative Adaptation and Personalization Web-based System, namely, AdaptiveWeb¹¹⁶ that has been developed and positively evaluated in the Web domain (Germanakos et al., 2009).

```
<csl>
  <csl name="General Information">
    <h2 style="...">Sony Vaio SZ791</h2>
    <p>Notebook</p>
    <p>Ultra Portable</p>
  </csl>
  <csl name="CPU Information">
    <p>Intel Core 2 Duo</p>
    <p style="...">2.5 GHz</p>
  </csl>
  <csl name="Memory Information">
    <p>4GB Ram Memory</p>
    <p>250 GB Hard Disk (7200 rpm)</p>
  </csl>
</csl>
```

Fig. 2. Sample code extension with the new <csl> tag

The proposed methodological approach is related to the mapping process mechanism (that is, rules responsible for the content's transformation based on the correlation of the cognitive implications and the actual raw (provider's) data) and the imminent adaptation of any content based on the specific human factors, that is in the particular case the cognitive styles and working memory.

Web Browser Extension

A suggested precondition for the mapping process to work properly at this stage is to extend the well known html model with a new set of tags; <csl> (cognitive style list) and <cslitem> (cognitive style list item). A Web Browser (Mozilla Firefox) Extension has been therefore developed in order for the browser to recognize and implement the set of tags. Fig 2 shows a sample code that is extended with the new set of tags.

This set of custom xml tags is interpreted by the Web browser extension for reconstructing a given Web content when mapped with a user's cognitive factors.

¹¹⁶ See <http://www3.cs.ucy.ac.cy/adaptiveWeb>

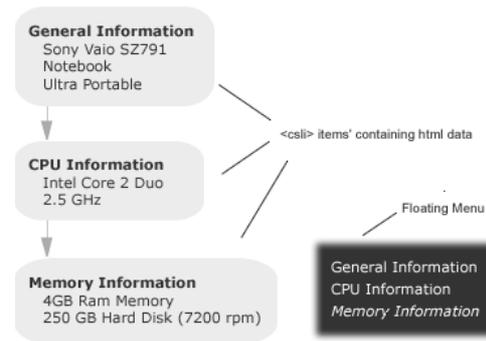


Fig. 3a. Browser content interpretation based on user's profile (Wholist / Imager)

Based on the sample code depicted in Fig. 2, the corresponding browser's extension interpretation and content presentation is shown in Fig. 3a and 3b.

In case a user is a Wholist / Imager (with regards to his cognitive style – see Fig. 3a), the browser will enhance each `<csli>` item, along with its containing data, with a diagram box (Imager) and will also create a floating menu (Wholist) that contains each `<csli>` item's name so to help the user navigate through the items by clicking on the corresponding link.

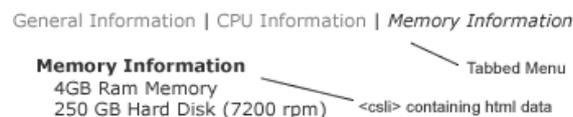


Fig. 3b. Browser content interpretation based on user's profile (Analyst / Verbalizer)

In Figure 3b, the user happens to be an Analyst / Verbalizer. In this case, the browser shows the `<csli>` item's containing data in a textual form (Verbalizer) and will also enhance the Web-page with a tabbed menu for each `<csli>` item (Analyst). Each time the user clicks on a link of the tabbed menu, the corresponding data of the `<csli>` item is shown on the Web-page.

Mapping the `<csli>` tag with the User's Cognitive Characteristics

Our main goal in this section is to show in a more detail how the web browser extension interprets the `<csli>` tag and adapts the containing information based on the user's profile and consequently the abovementioned cognitive factors. The adaptation process involves the transformation and / or enhancement of a given raw Web-based content (provider's original content) based on the impact the specific human factors have on the information space (Germanakos et al., 2009, Germanakos et al., 2008) (i.e., show a more diagrammatical representation of the content in case of an Imager user, as well as provide the user with extra navigation support tools). Fig. 4 shows the possible Web content transformations / enhancements based on the mapping process that take place during adaptation process, the influence of the human factors and the theory of individual differences.

According to Fig. 4, the meta-characteristics of a user profile are deterministic (at most 3); Imager or Verbalizer, Analyst or Wholist and Working Memory level (considered only when low).

For a better understanding, a user that happens to be an Imager gets as mentioned above a diagrammatical representation of the containing information of the `<csli>` tag. The `<csli>` tag is used by the web browser extension to distinguish the logical meaning of a sentence when

creating the diagrammatical representation. In other words, the <csl> tag is used for a new paragraph sentence in the <csl> division. As we will see later, the <csl> tag is interpreted differently by the browser when the user types change. On the other hand, when a user is a Verbalizer (prefers text instead of diagrammatical representations), no changes are made to the containing custom xml tags of <csl>.

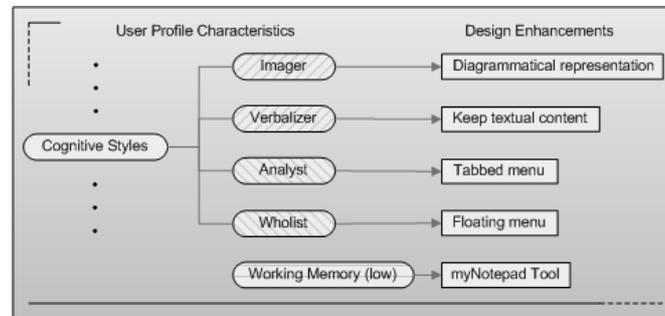


Fig. 4. Web design enhancements / transformations

Furthermore, if a user is an Analyst, the information will be enriched with a tabbed menu to be easier accessible. The menu will consist of the <csl> element's containing <csl> tags. The <csl> tags along with the "name" attribute (see Fig. 2) are used in this case to create the tabbed menu with the name of each <csl> element comprising an item of the menu. Each <csl> element is added to the tabbed menu and is used as a dynamic link to the containing information of the particular tag. The same logic of transformation is used when mapping the <csl> with a Wholist user. In this case, a dynamic floating menu with anchors is created so to guide the users on specific parts into the content while interacting. Again, the <csl> elements comprise the menu's items.

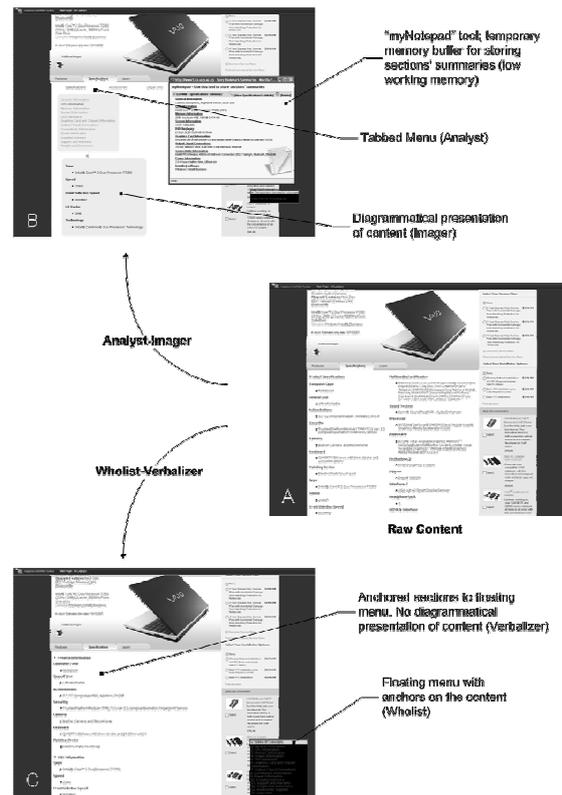


Fig. 5. Content adaptation according to user's comprehensive profile

Finally, when users happen to have a low working memory level, the browser will provide them with the "myNotepad" tool (temporary memory buffer) for storing a section (<csli> element content) of the page and keep active information that is interested in until the completion of a cognitive task at hand.

An eCommerce Adaptation Paradigm

We have designed and authored an experimental environment in the application field of eCommerce using the <csl> tags. The eCommerce (Web) environment that has been developed used the design and information content of an existing commercial Web-site of Sony¹¹⁷. This Web-site provides products' specifications of the Sony Company. We have developed an exact replica of the Sony Notebooks' section in sonystyle.com using the <csl> tags. Fig. 5a depicts the Sony Web-site without any personalization made, while Fig. 5b and Fig. 5c shows the same Web-site after the personalization and adaptation process has been initiated, with the content to be adapted according to the user's comprehensive profile and consequently the UPPC ontology.

As we can easily observe, the original environment has been altered based on rules that define the typologies of the users in terms of content reconstruction and supportive tools. For example, a user might be identified as an "Analyst-Imager" with low working memory and therefore the Web environment during interaction time would be as in Fig. 5b. The information will be presented in a diagrammatic form (imager), will be enriched with menu tabs (analyst) to be easier accessible and with the "myNotepad" tool (temporary memory buffer) for storing sections' summaries (low working memory). In case that a user is identified as "Wholist-Verbalizer" the content will be automatically reconstructed as in Fig.5c, where a floating menu

¹¹⁷ See <http://www.sonystyle.com> (date extracted: September 19, 2007)

with anchors Wholist) have been added so to guide the users on specific parts into the content while interacting. In this case no diagrammatical presentation will be used because the user is a Verbalizer.

EXPERIMENTAL EVALUATION USING AN ECOMMERCE SETTING

The following section overviews the experimental design of Sony and the results that support the notion of personalization in Web-sites using the UPPC ontology as the main influential factor irrespective of the reconstruction mechanism (automatic or predefined).

Methodology and Design Implications

In order to evaluate such an approach a within participants experiment was conducted, seeking out to explore if the personalized condition based on the UPPC ontology serves users better at finding information more accurately and fast.

The number of participants was 89; they all were students from the Universities of Cyprus and Athens and their age varied from 18 to 21, with a mean age of 19. They accessed the Web environments using personal computers located at the laboratories of both universities, divided in groups of approximately 12 participants. Each session lasted about 40 minutes; 20 minutes were required for the user-profiling process, while the remaining time was devoted to navigating in both environments, which were presented sequentially (as soon as they were done with the first environment, the second one was presented).

The content was about a series of Sony Notebooks: general description, technical specifications and additional information were available for each model. We considered that the original (raw) version of the environment was designed without any consideration towards cognitive style preferences, and the amount of information was so high and randomly allocated that could increase the possibility of cognitive overload. The personalized condition addressed these issues by introducing as personalization factors both cognitive style and working memory span. The psychometric materials that were used are the following: i) Cognitive Style: Riding's Cognitive Style Analysis, ii) Working Memory Span: Visuospatial working memory test (Demetriou et al., 1993, Demetriou and Kazi, 2001).

In each condition, users were asked to fulfill three tasks: they actually had to find the necessary information to answer three sequential multiple choice questions that were given to them while navigating. All six questions (three per condition) were about determining which laptop excelled with respect to the prerequisites that were set by each question. There was certainly only one correct answer that was possible to be found relatively easy, in the sense that users were not required to have hardware related knowledge or understanding.

As soon as users finished answering all questions in both conditions, they were presented with a comparative satisfaction questionnaire; users were asked to choose which environment was better (1-5 scale, where 1 means strong preference for environment A and 5 for environment B), regarding usability and user friendliness factors.

The dependent variables that were considered as indicators of differences between the two environments were:

- a) Task accuracy (number of correct answers)
- b) Task completion time
- c) User satisfaction

The within participants design allowed the control of differences and confounding variables amongst users.

Regarding the design implications in this eCommerce setting, the content enhancements and transformation considerations discussed in previous sections regarding users' particular typologies were followed. More specifically, users with low working memory received a "myNotepad" tool that allowed them to make entries of goal-related information

Results

The most robust and interesting finding (Germanakos et al., 2009) was the fact that users in the personalized condition were more accurate in providing the correct answer for each task. The same user in the raw condition had a mean of 1 correct answer, while in the personalized condition the mean rose to 1.9.

Since the distribution was not normal and the paired samples t-test assumptions were not met, Wilcoxon Signed Ranks Test was performed, showing that this difference is statistically significant at zero level of confidence ($Z = -4.755$, $p = 0.000$). This is probably a very encouraging finding, implying that personalization on the basis of these factors (cognitive style and working memory span) benefits users within an eCommerce environment, as long as there are some cognitive functions involved of course (such as information seeking).

Equally interesting is the fact that users in the personalized condition were significantly faster at task completion. The mean aggregated time of answering all three questions was 541 seconds in the raw condition, and 412 in the personalized. A paired samples t-test was performed ($t(88) = 4.668$, $p = 0.000$) demonstrating significance at zero level of confidence. Again, this second dependent variable (time) shows that the personalized environment is more efficient.

As it concerns the satisfaction questionnaire, 31 users leaned towards the personalized environment, 38 had no preference while 20 preferred the raw. This descriptive statistic is merely indicative of whether participants would consciously observe any positive or negative effects of the personalized condition. A considerable percentage leaned towards that condition (or at least users did not seem somehow annoyed by such a restructuring), but overall it cannot be supported that they were fully aware of their increase in performance, as shown by the abovementioned findings.

In sum, the specific experiment shows in a rather clear way that users performed better within the personalized environment, and these findings are statistically very robust. It could be argued of course that there is no way to be fully aware if information processing was more efficient at a deeper level, or users simply found the personalized condition more of their (perhaps unconscious) liking, thus devoting more conscious cognitive effort.

Nevertheless, such an increase in performance, which is consistent to the findings of previously conducted experiments in the field of eLearning (Germanakos et al., 2008), provides support for the further development and application of our UPPC ontology in different Web-based application environments.

CONCLUSIONS

The basic objective of this paper was to present a conceptualization of a human factors ontology, namely UPPC, for hypertext computer-mediated systems. It has been attempted to approach the theoretical considerations and technological parameters that can provide the most

comprehensive user profiling and further supporting the provision of the most apt and optimized user-centered Web-based result.

We further proposed a Web-based content adaptation design methodology according to the ontology's impact into the information space, and described the mechanism that is based on a proposed Web browser extension set of custom xml tags for the imminent automatic transformation and enhancement of the Web-based content. The specific influence and the Web design enhancements and content transformations have been overviewed and positively evaluated in the eCommerce domain.

It was clearly demonstrated that users' information finding was more accurate and efficient, both in terms of providing correct answers to the task questions and in task completion time. These findings reveal that our approach turned out to be initially successful, with a significant impact of the UPPC ontology and the given human factors in the personalization and adaptation procedure of Web-based environments.

Future and emerging trends include a more extensive study on the structure of the metadata coming from the providers' side as well as a fully detailed technical description of the UPPC ontology, implemented and tested in different domains and contexts.

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THE ROLE OF PORTFOLIO DIVERSIFICATION IN THE HOTEL INDUSTRY: EVIDENCE FROM THE ITALIAN MARKET

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INTRODUCTION

During the last years, the hotel sector has been interested by an important development mainly in certain Countries, such as Italy, demonstrating a growing ability in obtaining positive results (Jones Lang Lasalle Hotels, 2009).

Studies proposed in literature carried out significant differences in management policies of single hotel investments according to the presence or not of institutional investors (Mooradian and Yang, 2001) and identified different trend in securities issued by hotel chains respect to the overall market (Kim, Gu and Mattila, 2002).

With regards to the portfolio analysis, authors looked prevalently at the advantages for an institutional investor related to the inclusion of hotels in a diversified multi-asset portfolio (Quan, Li and Sehgal, 2002), stressing the main differences of hotels compared to the other real estate investments (Firstenberg, Ross and Zisler, 1988) and highlighting the distinctive features of property cycles for this specific market (Corgel, 2005). Researches on different hotel types were restricted to the performance correlation (Jang and Yu, 2002) and it lacks studies defining some guidelines about the minimum/maximum number of hotels to include in a portfolio and/or criteria to adopt for its composition.

Starting from several studies using the Markowitz's model to identify the best property portfolio composition (Friedman, 1971 among the others), the paper evaluates the advantages and limits deriving from the risk diversification in the hotel investments on the basis of an efficient frontier approach. Therefore, results obtained may complete the performance analysis of an institutional investor in the hotel sector, providing some interesting empirical results useful for the identification of a diversification criterion that allows to maximize the return and/or to minimize the risk exposure.

The paper presents a literature review about the sector/geographic diversification strategies in the hotel investments, analysing the main explanations that can justify the different results achieved by properties with a different destination of use and/or located in different geographical area (section 2). The empirical analysis presents the sample feature in respect to the overall Italian market (section 3.1), determines the methodology on the basis of the characteristics and limits of the available data (section 3.2) and evaluates the results concerning the portfolio with and without minimal diversification constraints (respectively sections 3.3.1 and 3.3.2). The last section summarizes some brief conclusions and implications for hotel chains and institutional investors specialized in this sector (section 4).

The results achieved with the empirical analysis of Italy, one of the most important world market ^[1], prove how the composition of an optimal hotels portfolio is strongly different according to the presence or not of diversification constraints. Unconstrained portfolios are significantly concentrated in some asset classes but, in the time horizon considered, the composition of more efficient portfolios varies significantly. The lower yield for unit of risk assumed of constrained portfolios respect to unconstrained ones could be considered acceptable because results obtained are more persistent over time.

LITERATURE REVIEW

The purpose of a diversification criteria is to select investments that presents dynamics that are not strictly correlated (or better that are negatively correlated) in order to reduce the overall risk of a portfolio. Sectoral and geographic segmentation represents the general principle in diversifying an investment portfolio also in the property market because of the relation between the dynamics of property with same use-destination and located in similar area (McMahan, 1981).

Differences among hotel located in different geographical area are related to (Strano, 2006):

- weather;
- country;
- fashion trend;
- economic trend;
- seasonality.

Mainly with reference to some retail segments and to several kinds of hotel, the demand could be strongly influenced by climatic variable because the serviceability for the customer is partially linked to the coherence of weather conditions in respect of his expectations (Aall and Hsyer, 2005).

The characteristics of the country where the real estate unit is located can influence both risks and results derived from the hotel management: political instability and social problems can make more complex the investment management (Poirer, 1997) while policies adopted to support the hotel industry can reduce the investment risk and/or will lift up profit margins of activity (Hall, 1998).

The demand of hotels located in a specific area may be influenced by irrational components, fashion trend, that modify customers choices (Seaton, 1996) causing anomalous and unexpected changes in investment profitability (Crouch, 1995).

The demand of service provided to customer base is strictly related to the general economic trend and to the trend of the specific are where the hotel is located and profits prospects connected to the hotel activity appear susceptible to the contest conditions change (Canina and Carvell, 2005).

The seasonality is chiefly related to retail customer for which the service demand, for climatic or institutional matters, may vary in times of year. The weather aspect depends, above all, on atmospheric/meteorological conditions (temperature, degree and nature of precipitations, etc...) whereas the institutional component depends on several social rules involving potential clients and able to influence the service demand (religious festivals, holidays, etc...) (Butler, 2001).

The sectoral diversification consider the structure of costs an revenues of different type of hotel assuming that there will be significant differences on the basis of quality of service offered or the type of customers served.

Differentiation on the basis of service quality is important for what concerns cost structure because charges linked to the customers' satisfaction are different in accordance with the complexity of demand satisfied (Younes and Kett, 2007). Standardized models (i.e. star rating) widely spread at international level settle guidelines in classifying various hotels accordingly to the kind of services provided and useful to communicate the target customer of service. (Wang, 2003).

Hotel classifications based on service quality are realized considering general guidelines in the assignment of stars rating but there is not a specific rule to establish the relationship between the characteristics of each service and the final opinion on the hotel (Parrilla, Font and Nadal, 2007).

Classification upon the typology of served customers is based on differences existing in employment rate dynamics, in occupation period, in pricing policies e in overbooking risk between the business customer and the retail one (Baker and Collier, 1999).

Business customer charges service costs to the firm and, therefore, he is more interested in the quality of the service in respect of the price (Vinod, 2004). Other recurring features are the booking for a reduced number of successive nights (usually one) mainly concentrated during midweek days (Wheaterford, 1995) and an heterogeneous pricing dynamics for groups in relation with the nature of the relationship between the hotel manager and the company promoting the event (Steed and Gu, 2005).

For retail customers, instead, the coincidence between the payer of service and the user is preserved and the right management of customers implies the evaluation of satisfaction level related to price and provided services ratio (Noone, Kimes, Renaghan, 2003). Most recurrent features are identifiable in the demand focused above all during week ends, often implying successive nights of stay in the same hotel (Choi and Mattila, 2004) and, even in case of groups, the remarkable sensitivity to price may determine the inability to appreciate service provided (Lewis and Shoemaker, 1997) and/or incentive to use internet in order to compare available offers in similar hotels partly reducing the profit margins of structure (O'Connor, 2003).

Customer classification related to the served segment is very useful estimating income dynamics connected to the hotel even if is not easy to apply such type of classification. In fact notwithstanding the possibility to identify, mainly in the Italian market, certain hotel typologies (B&B and small hotels of low-quality standard) uniquely designed to private customer (Monente, Pozzana and Ballanti, 2007), medium-high standard hotels, located in important cities from an economic view, provide services able to satisfy both business customer and retail ones, so, the classification of hotel for type f classification served is not easy.

EMPIRICAL ANALYSIS

Sample

The analysis considers the Italian market collecting information from Associazione Italiana Catene Alberghiere (AICA) ^[2]. Comparing the available sample with data referred to the entire Italian market, the coverage of available data in terms of number of structures is moderate (mainly for what concerns hotels with a 3 stars quality standard or less) but the sample seems to be enough representative on the basis of revenues of hotels considered (Table 1) .

		AICA	Italy	Ratio between AICA and Italy
Number of Hotels	Overall	265	33,768	0.80%
	*****	25	254	9.84%
	****	204	3950	5.16%
	***	36	17038	0.21%
	**	0	7718	0.00%
	*	0	4808	0.00%
Total Revenues		1,462,728,638.63	22,638,470,580.00	6.46%
Mean revenues for each hotel		5,519,730.71	686,014.26	804.61%
Mean revenues for room available		35,271.97	22,549.02	156.42%

Table 1. Sample characteristics. Source: AICA e Databank data processed by authors (2007)

The size of sample varies over time because the availability on information for AICA linked to the choice of members to provide or not their information to AICA in order to elaborate sector statistics.

For what concerns qualitative characteristics, the sample includes just hotel structures (structures like B&B and holiday camps are excluded) but present a good geographical coverage of main Italian regions and provinces (Figure 1).

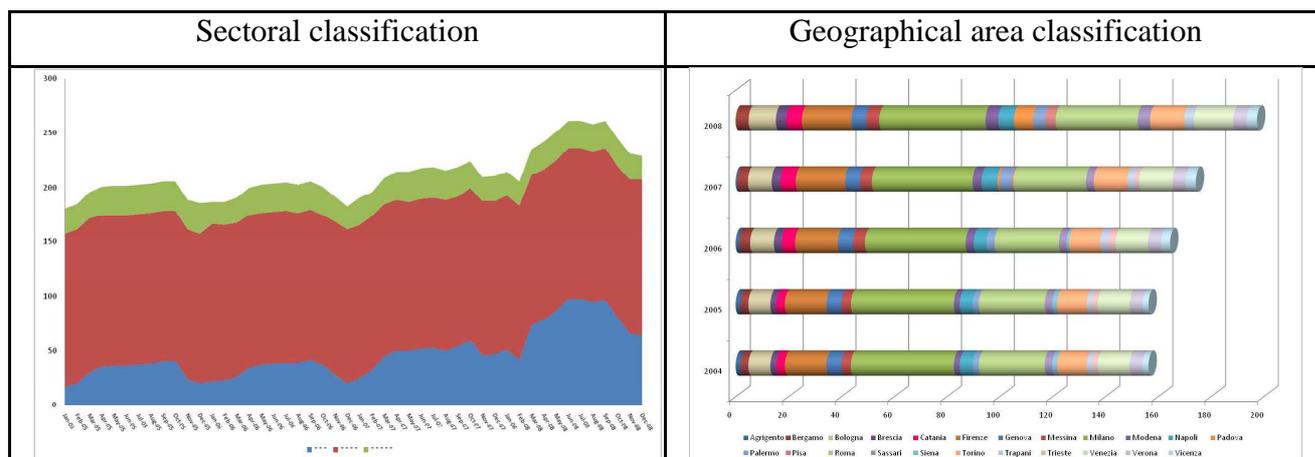


Figure 1. Sample composition classified for sector and geographical area. Source: AICA data processed by authors

In order to estimate benefits due to the investment portfolio diversification, single structures have been combined in homogeneous groups in function of their reference province and of the quality of provided service.

Data referred to mean daily revenue per available room and to mean daily occupation rate for each month have been provided by AICA preserving the anonymity of hotel to whom data were related. Internal accounting of each hotel structure is not available for AICA and data related to costs incurred for the service supply have been, then, taken from the aggregate balance periodically edited by the association (Table 2).

Cost in the balance sheet	Type	Information available				
		2004*	2005	2006	2007	2008**
Input consumption	Variable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Services expenses	Variable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Expenses for leased assets to third parties	Variable	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Other managing expenses	Variable	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Employee expenses	Semi-Fixed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Amortization and depreciation	Fixed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Provisions	Fixed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Notes:
 *Data about “Expenses for leased assets to third parties” and “Other managing expenses” for the 2004 are included in the macro-category “Service expenses”
 ** Data for the 2008 are not available now because the balance sheet are not published. These information are substituted using forecasts realised on the basis of the trend of the last 4 years

Table 2 . Available information on cost structure. Source: AICA data processed by authors

In order to make coherent available cost items and profit items, the equivalent of costs incurred by the hotel per day during each year has been examined. Every cost item has been,

then, classified into fixed or variable category on the basis of their sensitivity to service demand (Graham and Harris, 1999).

On the basis of available data it has been defined the segmentation of costs into fixed and variable by imputing fixed costs to different hotel categories in relation to their structure dimension while variable costs have been imputed just in relation to the rooms occupancy rate. The hypothesis behind to such attribution criterion is that variable component could be managed by establishing the service quality in accordance with the room demand. For what concerns staff cost it was useful to considered it as a semi fixed cost because even if staff cannot be modified during the season, hotel can use seasonal work to minimize such item cost if for a certain period a closing period has been settled (Ball, 1989).

Methodology

The choice of best investment opportunities in hotel sector has been analyzed using a standard financial approach to evaluate financial investments, the efficient frontier (Markowitz, 1952).

On the basis of the literature review, the performance measure for hotel investments is identified as the Gross Operating Profit for Available Room (GOPPAR) (Brown e Dev, 1999), considering only the hotel core-business and excluding from the analysis the profit coming from optional services provided to customer (restaurant, SPA resort, etc..) (Ganchev, 2000). In formulae:

$${}_{t_0} GOPPAR_{t_1} = \frac{1}{n} \sum_{i=0}^n \sum_{t=t_0}^{t_1} (Revenues_{it} - Costs_{it}) \quad (1)$$

where:

${}_{t_0} GOPPAR_{t_1}$ = Gross operating profit per available room during the period between t_0 and t_1 ;

n = total of available rooms;

$Revenues_{it}$ = Revenues from the occupancy of i -th room during the t -th period

$Costs_{it}$ = costs (fixed, semi fixed and variable) referred to the i -th room available in the t -th period.

Data about revenues related to each room are normally available and the estimate is quite objective meanwhile there are some degrees of arbitrariness linked to the evaluation of costs to be considered in the formula.

Literature about the balance analysis of hotels underlined how, due to the strong variability of services demand, the evaluation of economic result could be made only if a detailed internal accounting is available enabling the determination of each type of cost and its relationship with the occupancy room rate (Gigli, 2003).

Disaggregating costs into fixed and variable costs, the evaluator has to presuppose several hypothesis for what concerns some items of cost (staff e.g.) for those who have not a single

literary interpretation of their nature (Modica, 2004). The main problem related to the definition of performance measures also involves the availability of information dataset complete enough to attribute to the single room not only variable costs but fixed costs too and, usually, the choices are strongly bound by data availability (Pellinen, 2003).

To preserve the measure usefulness in comparing different investments it has to be calculated always on the same time period (usually Year-to-Date or Month-to-Date) not excepting closing period of the structure (Ismail, Dalbor and Mills, 2002) and taking into account the total amount of rooms regardless of any possible maintenances responsible of the temporary unavailability of some rooms (Slattery, 2002).

On the basis of the quality of available information, a measure of GOPPAR has been monthly calculated using the following formula:

$$GOPPAR_j^{rs} = \frac{1}{n} \sum_{i=0}^n \sum_{t=t_0}^{t_1} (Revenues_{it}^{rs} - Costs_{it}^{rs}) = {}_{t_0}REVPAR_{t_1}^{rs} - {}_{t_0}\overline{FCPAR}_{t_1}^s - {}_{t_0}\overline{PFCPAR}_{t_1}^s \times {}_{t_0}Season_{t_1} - {}_{t_0}\overline{VCPOR}_{t_1}^s \quad (2)$$

where:

$GOPPAR_j$ = net profit per available room per month j (month starting from t_0 date till t_1 date)

n = total of available rooms;

$Revenues_{it}$ = Revenues from the occupancy of i -th room during the t -th period;

$Costs_{it}$ = costs referred to the i -th room available in the t -th period;

${}_{t_0}REVPAR_{t_1}^{rs}$ = average revenues per day per available room during the t_0 - t_1 month for hotels of a specific category in a specific province;

${}_{t_0}\overline{FCPAR}_{t_1}^s$ = average fixed costs per available room per day of s category hotels from annual aggregate balance of AICA partners;

${}_{t_0}\overline{PFCPAR}_{t_1}^s$ = average semi fixed costs per available room per day of s category hotels from annual aggregate balance of AICA partners;

${}_{t_0}\overline{VCPOR}_{t_1}^s$ = average variable cost per available room per day of s category hotels from annual aggregate balance of AICA partners;

${}_{t_0}Season_{t_1}^{rs}$ = dummy variable embodying value as 1 just in the event that in t_0 - t_1 month the hotel carried out its activity.

Once identified a measure of net profit for each month, the average GOPPAR on a year time period and the standard deviation of monthly GOPPAR for hotels of a certain category located in a specific province have been calculated. In formulae:

$$E(GOPPAR)_{yearly}^{rs} = \frac{1}{12} \sum_{j=1}^{12} GOPPAR_j^{rs} \quad (3)$$

$$\sigma(GOPPAR)_{yearly}^{rs} = \frac{1}{12} \sqrt{\sum_{j=1}^{12} [GOPPAR_j^{rs} - E(GOPPAR)_{yearly}^{rs}]^2} \quad (4)$$

Measures of mean yield and risk metrics are used in order to construct yearly efficient frontiers in order to estimate benefits in terms of risk-return of trade-off deriving from the construction of diversified portfolios compared to the investment focused on a single asset class and to evaluate the relative weight of each investment.

The analysis has been repeated every year to control if characteristics of different asset classes have changed during the 5 years taken into account (2004-2008) and to estimate, using a persistence analysis, if investment strategies realized during the t-n year are the best solution of investment just referred to an annual period or are a good solution also for wider periods where is not possible to rebalance the portfolio at the end of the year. Persistence is an especially aimed feature for hotel investments, and in general for any direct property investment, since the assumption regarding the possibility of modifying the investment strategy during the brief period is strongly less acceptable compared with the same hypothesis made for financial investments (Seiler, Webb and Myer, 1999). In order to study the persistence of performance over the time, have been computed those results which should have been achieved by portfolios on frontiers for years subsequent to the estimated year and it has been calculated the differential between the yield and the risk of new portfolios and portfolios entered in the efficient frontiers built on the basis of estimated year. In formulae for each portfolio the distance is computed as follows:

$$d_i(P_t^*, P_{t-i}^*) = \sqrt{\left(E(GOPPAR)_t^{P_t^*} - E(GOPPAR)_t^{P_{t-i}^*}\right)^2 + \left(\sigma(GOPPAR)_t^{P_t^*} - \sigma(GOPPAR)_t^{P_{t-i}^*}\right)^2} \quad (5)$$

where:

$d_i(P_t^*, P_{t-i}^*)$ = distance between frontier portfolios identified at t and t-i time ;

$E(GOPPAR)_t^{P_{t-i}^*}$ = mean GOPPAR over t year of efficient portfolios identified on time t-i with $i \in [0,4]$;

$\sigma(GOPPAR)_t^{P_{t-i}^*}$ = standard deviation of GOPPAR over t year of efficient portfolios identified on time t-i with $i \in [0,4]$.

Such data have then been summarized by several descriptive statistics to estimate the average, maximum and minimum persistence of every considered portfolios.

The last research took into account the possibility to impose maximum concentration limits on portfolio in order to evaluate if increasing the diversification level through an ex-ante determination of limits will significantly influence the investment risk and revenue profile and if eventually benefits/losses coming from limits of diversification will be more or less balanced

by a major/minor performance persistence. Data on Italian institutional investors specialized in hotel sector exhibit the concentration level, estimated as the inverse of the number of assets in the portfolio, is never higher than 50%^[3]. The analysis of the limits of diversification effect has been realized considering efficient frontiers with different concentration limits (between 0% and 50%) and using integral calculus to measure the lower risk-return trade-off related to the definition of limits with a wide range of diversification. In formulae:

$$\int_{\min \sigma(GOPPAR)}^{\max \sigma(GOPPAR)} EF_{constrained} \partial(\sigma(GOPPAR)) \quad (6)$$

Once having established the area for the different levels of imposed limit, the sacrifice has been estimated through a comparison between areas under different curves by the study of single hotel investments not dominated anymore further to the imposition of maximum concentration limit. The study of constrained frontiers characteristics has been completed by replicating the analysis of persistence proposed for unconstrained frontier in order to valuate if the imposition of limits may determine effects not only for what concerns revenue/risk of efficient portfolio but also on performance persistence over the time.

Results

Unconstrained efficient frontier

Through a standard optimization form it has been constructed the efficient frontier referred to property investment starting from data related to the mean and standard deviation of GOPPAR during observed years. For the optimizer the efficient frontier was traced identifying 100 representative portfolios (Figure 2).

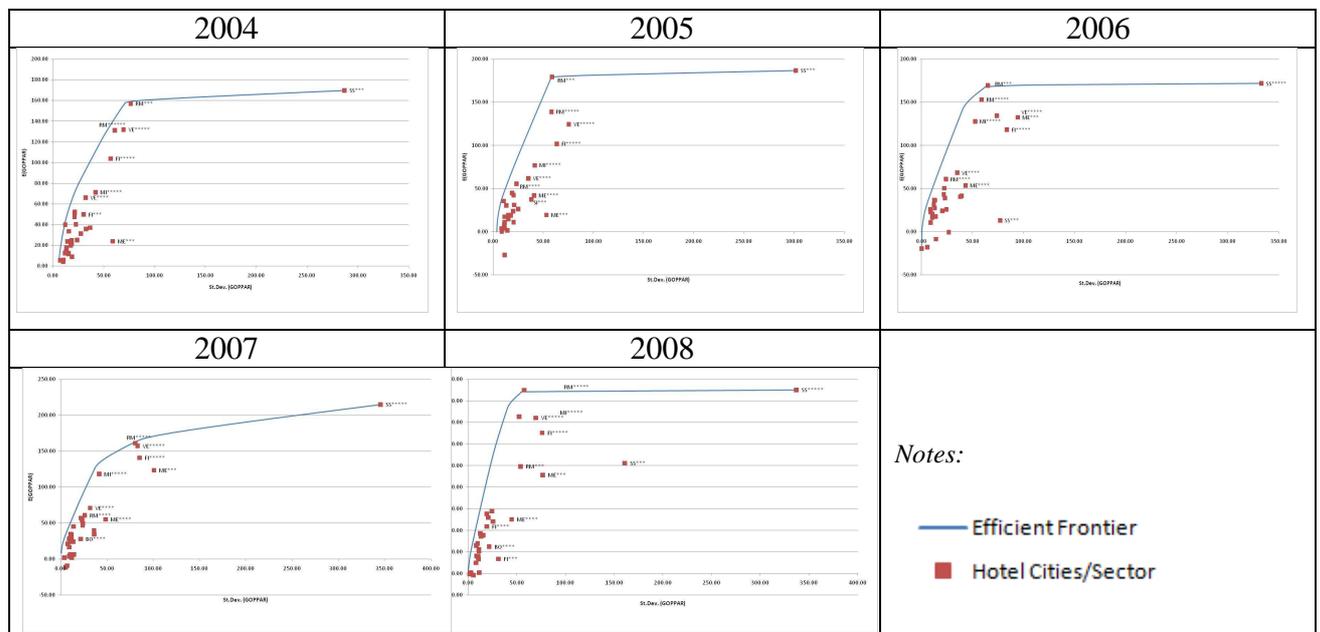


Figure 2. Unconstrained efficient frontiers of hotel investments. Source: AICA data processed by authors

The analysis of frontiers over the 5 years taken into account underlines the presence of an asset characterized by the maximum mean level and standard deviation and placed itself, thereby, at the extreme point of frontier. Over 2004-2005 this investment is represented by 3 stars hotel structure in Sassari while over 2006-2008 it describes 5 stars hotel structure in Sassari. Sassari province represents, then, the province granting wider profit margins within the sample even if the structure seasonality determines a high risk investment [4].

Hotels with a more balanced trade-off revenue-risk and however near to the efficient frontier have for the first years lower quality standard hotel structures but located in important cities (Rome - 3 stars and Milan/Turin - 4 stars) while over following years hotels near the efficient frontiers present high standing hotels (almost all 5 stars hotels) in major Italian cities (Rome, Milan, Venice, Florence).

The analysis of efficient frontier examined the composition of the 100 portfolios on the frontier in order to identify the role of single asset classes assigned by the optimizer to select the best combination of available investments (Figure 3).

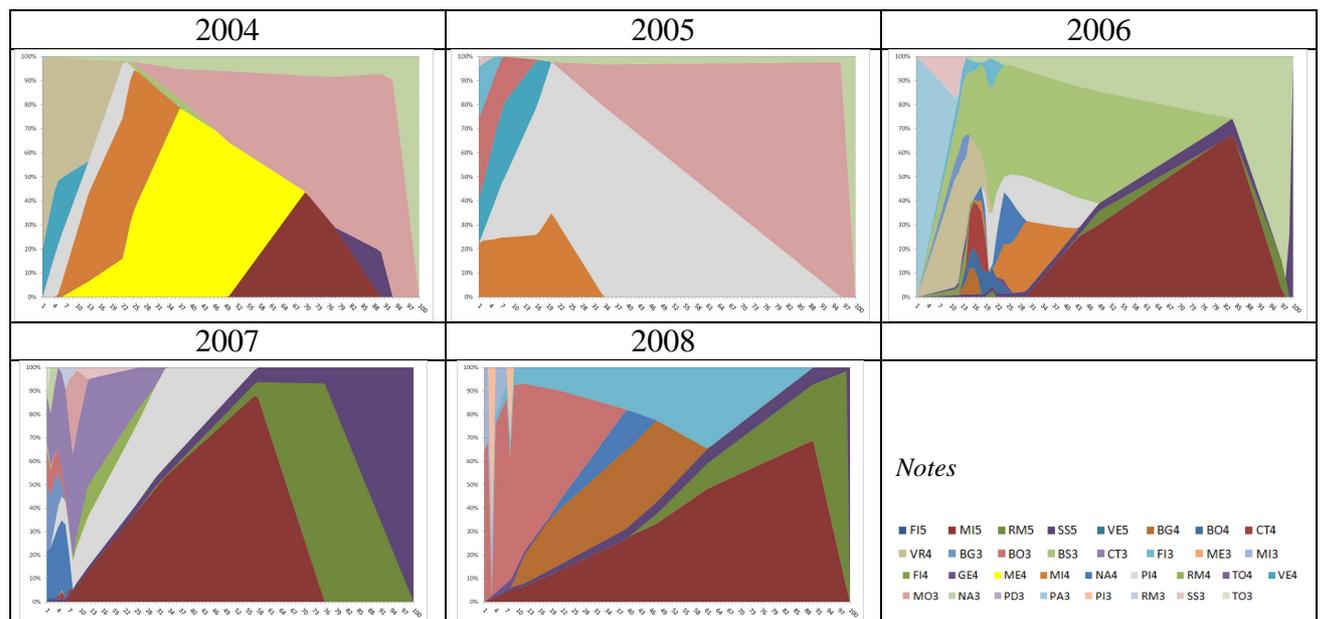


Figure 3. Portfolio composition of efficient portfolios. Source: AICA data processed by authors

Among years considered, portfolios presents very heterogeneous characteristics both in terms of average number of assets included in portfolio and also in terms of characteristics of hotel selected.

During the first two year period (2004-2005) portfolio are characterized by a low number of assets (less than 10 typologies of hotels) while during other years (mainly on 2006) created portfolios present a higher diversification level.

For what concerns real estate typologies we can generally state that 3 stars hotels do not operate at a marginal level on portfolios frontier most of all in specific cities (Rome, Milan and Naples) and in some areas with a strongly seasonal tourism (Sassari and Catania).

The characteristics of 3 stars hotels on efficient portfolios are not stable within the time because, for example, on 2004-2005 period 3 stars hotel categories are mainly located in Sassari and Rome while during following years such categories aim to disappear.

The role of some 5 stars hotels placed in more touristic cities as Venice and Florence is extremely interesting. Evidence obtained is partially related to the hypothesis made in the attribution of fixed and variable costs for 5 stars hotels which by assigning to cities proportional costs to the rooms number and to the occupancy rate it probably overvalue the extent of incurred costs by structure that may be considered lower compared to the costs of other cities with 5 stars hotels as Rome and Milan.

Performances for efficient frontier's portfolios have not a short-run persistence over time because of the impossibility to compare the revenue and risk levels resulting from t by efficient portfolios estimated on $t-n$ with revenues related to portfolios on the frontier set on t year (Table 3)

Mean distance					Distance standard deviation				
	2005	2006	2007	2008		2005	2006	2007	2008
2004	7.96	27.00	90.14	20.79	2004	15.74	33.28	97.72	25.86
2005	-	25.80	105.28	30.68	2005	-	31.04	94.24	26.05
2006	-	-	79.64	13.34	2006	-	-	76.84	12.98
2007	-	-	-	65.03	2007	-	-	-	59.10
Maximum distance					Minimum distance				
	2005	2006	2007	2008		2005	2006	2007	2008
2004	97.54	301.32	406.82	188.82	2004	0.00	8.12	4.06	3.82
2005	-	301.32	406.82	188.82	2005	-	4.92	2.96	5.51
2006	-	-	328.29	62.17	2006	-	-	0.00	0.00
2007	-	-	-	268.83	2007	-	-	-	0.00

Table 3. Summary statistics of distance measure for efficient portfolios identified in the previous year respect to the new efficient frontier. Source: AICA data processed by authors

Summary statistics reveal that during 2005 and 2006, in terms of average values, the choice to use portfolios created over previous years in order to build an investment portfolio was a fair solution while concerning to 2007 there is no coherence between the earnings and risk dynamics of hotels and what was previously estimated. However the analysis of the range of variation (the difference between maximum and minimum distance) and standard deviation highlights the strong variability in such a distance measure within the sample and underlines, thereby, the severe limits of the portfolio optimization approach that embodies the persistence of hotel sector performances.

Constrained efficient frontier

The analysis of the effect of limits on diversification about the construction of frontier has been carried out considering limits on the rate of available resources invested in each hotel typology, considered as the sum of hotels placed in the same geographical area and providing comparable service quality (number of stars), varying from 5% to 50% of total amount (Figure 4).

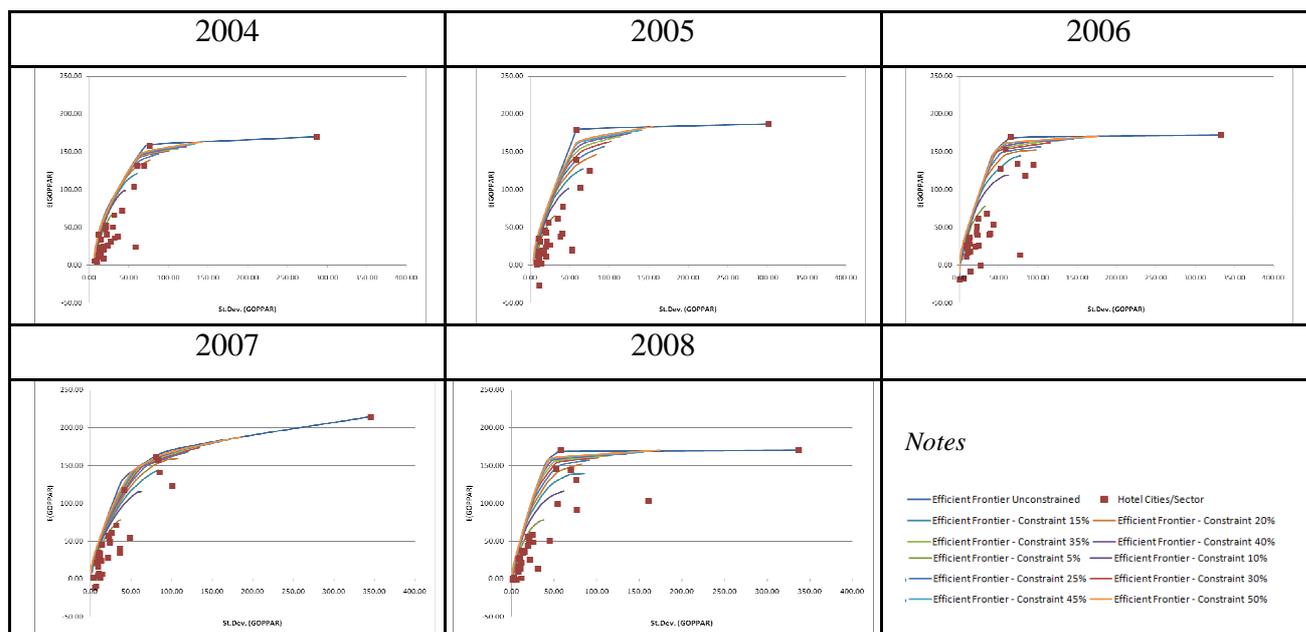


Figure 4. The impact of limits concentration on the efficient frontier. Source: AICA data processed by authors

A simple analysis of plots referred to several efficient frontiers revealed meaningful differences among results attainable with and without limits mainly for portfolios created with a maximum concentration limit of 15%-20% of total value. In considered frameworks, the solution without limits on portfolio composition rules over constrained frontiers and, in some cases, the choice of imposing strictly constraints determines a risk- return trade-off worst than the portfolios construction strategy focused on a single province or structure quality (Table 4).

		Max concentration allowed					
		None	50%	45%	40%	35%	30%
2004	% preferred inv.	-	3.03%	3.03%	3.03%	6.06%	6.06%
	St. Dev. Min	6.14	6.40	6.48	6.5705694	6.670449	6.777974
	St. Dev. Max	286.94	144.75	133.3616	122.32228	111.7386	99.80435
	Area	47503.98	18347.01	16353.74	14391.02	12546.8	10626.46
2005	% preferred inv.	-	12.12%	15.15%	15.15%	15.15%	12.12%
	St. Dev. Min	3.94	3.9363433	3.936343	3.9363433	3.936343	3.954179
	St. Dev. Max	301.82	156.08566	141.5175	127.23647	113.351	102.5615
	Area	62588.18	23085.148	19980.53	16992.087	14137.25	11985.67
2006	% preferred inv.	-	17.65%	17.65%	17.65%	20.59%	23.53%
	St. Dev. Min	0.00	0.27	0.30	0.33	0.36	0.40
	St. Dev. Max	333.16	176.74	160.67	144.84	129.36	115.58
	Area	82401.04	28448.10	24791.40	21246.80	17907.53	15275.40
2007	% preferred inv.	-	8.33%	8.33%	8.33%	8.33%	8.33%
	St. Dev. Min	0.80	0.7953841	0.795384	0.7953841	0.795384	0.795384
	St. Dev. Max	345.55	185.60455	172.673	160.00126	147.6561	134.0576
	Area	62164.20	28011.121	25330.19	22814.018	20227.94	17556.37
2008	% preferred inv.	-	2.70%	5.41%	8.11%	16.22%	21.62%
	St. Dev. Min	0.00	0	0	0	0	0
	St. Dev. Max	337.17	174.2243	154.4203	134.79697	115.4465	101.6382
	Area	94674.19	28781.089	24516.45	20171.996	15941.92	13108.6

		Max concentration allowed				
		25%	20%	15%	10%	5%
2004	% preferred inv.	6.06%	15.15%	18.18	21.21	33.33%
	St. Dev. Min	6.917676	7.17212996	7.528557	8.583237	11.30626
	St. Dev. Max	87.76052	76.7259237	60.47532	45.33972	28.94056
	Area	8662.628	6870.76273	4501.362	2573.357	869.1935
2005	% preferred inv.	15.15%	21.21%	24.24%	33.33%	42.42%
	St. Dev. Min	4.028655	4.31109865	4.806804	5.993672	9.385557
	St. Dev. Max	93.94184	83.545127	66.66523	48.06753	30.67013
	Area	10247.85	8239.21614	5486.283	2920.735	998.4288
2006	% preferred inv.	29.41%	29.41%	35.29%	35.29%	44.12%
	St. Dev. Min	0.55	0.77	1.71	3.41	6.65
	St. Dev. Max	103.33	97.82	77.88	61.84	32.85
	Area	12779.40	11406.12	7863.91	5057.89	1517.08
2007	% preferred inv.	8.33%	8.33%	16.67%	19.44%	25.00%
	St. Dev. Min	0.799254	0.8271273	1.079831	2.124371	5.214728
	St. Dev. Max	120.5631	107.20086	83.84157	63.08922	37.04297
	Area	14914.33	12241.549	8134.33	4888.698	1793.48
2008	% preferred inv.	21.62%	21.62%	21.62%	29.73%	35.14%
	St. Dev. Min	0.364031	1.4682955	2.752083	4.241124	6.637106
	St. Dev. Max	91.30985	81.9795929	85.04064	60.97322	37.79339
	Area	10950.37	9056.36555	8792.567	4934.592	1882.157

Table 4. Summary statistics on the impact of concentration constraint on the efficient frontier. Source: AICA data processed by authors

Sacrifice due to the imposition of limits on balance is estimable through the study of the area underlying the efficient frontier that significantly declines following to the establishment of every kind of limit to the portfolio construction. Over every year are registered, indeed, reductions higher than 54% in the case of imposition of portfolio concentration limits at 50% and reduction higher than 97% regarding the imposition of limits on maximum diversification (portfolio concentration at 5%).

Limits on efficient frontier construction determines the impossibility to establish optimally portfolio compositions always governing compared to the alternative choice investing in only one hotel typology. The analysis, in detail, underlines as the limits imposition may establish the construction of a theoretical set of favourable concurrences which appears dominated by a significant number of single investment opportunities (fluctuating among 3.03% for portfolios created on 2004 with a limit of 50% and 44.12% for portfolios created on 2006 with a limit of 5%).

Such performance sacrifice is partially regulated by the wider persistence of frontier portfolios whom composition does not aim to change over the years in a significant way mainly for portfolios with pressing diversification limits. The analysis of mean distance among portfolios on considered frontiers over t moment in respect of the results achieved by favourable portfolios created over past years is a sustainment to this thesis (Table 5).

<i>Unconstrained frontier</i>					<i>Frontier – Max concentration 50%</i>					<i>Frontier – Max concentration 45%</i>				
	2005	2006	2007	2008		2005	2006	2007	2008		2005	2006	2007	2008
2004	7.96	27.00	90.14	20.79	2004	2.89	19.87	55.20	16.56	2004	2.84	18.20	50.57	14.52
2005	-	25.80	105.28	30.68	2005	-	19.22	64.52	22.81	2005	-	16.57	58.71	20.10
2006	-	-	79.64	13.34	2006	-	-	43.58	10.90	2006	-	-	40.89	10.01
2007	-	-	-	65.03	2007	-	-	-	29.51	2007	-	-	-	28.10
<i>Frontier – Max concentration 40%</i>					<i>Frontier – Max concentration 35%</i>					<i>Frontier – Max concentration 30%</i>				
	2005	2006	2007	2008		2005	2006	2007	2008		2005	2006	2007	2008
2004	2.82	16.74	45.90	12.64	2004	3.05	15.62	41.47	10.98	2004	2.91	14.64	36.24	9.93
2005	-	14.33	53.21	17.51	2005	-	12.85	47.97	15.08	2005	-	11.49	41.69	12.94
2006	-	-	37.79	9.06	2006	-	-	34.58	8.51	2006	-	-	30.64	8.03
2007	-	-	-	26.47	2007	-	-	-	24.59	2007	-	-	-	21.43
<i>Frontier – Max concentration 25%</i>					<i>Frontier – Max concentration 20%</i>					<i>Frontier – Max concentration 15%</i>				
	2005	2006	2007	2008		2005	2006	2007	2008		2005	2006	2007	2008
2004	2.51	13.10	31.19	9.27	2004	2.93	10.02	26.37	7.39	2004	1.87	10.55	23.49	7.80
2005	-	9.58	36.70	11.58	2005	-	8.39	31.72	10.28	2005	-	10.75	26.25	10.20
2006	-	-	26.21	7.42	2006	-	-	20.63	6.51	2006	-	-	12.69	4.23
2007	-	-	-	16.03	2007	-	-	-	8.95	2007	-	-	-	5.12
<i>Frontier – Max concentration 10%</i>					<i>Frontier – Max concentration 5%</i>									
	2005	2006	2007	2008		2005	2006	2007	2008					
2004	2.30	10.10	17.12	8.96	2004	1.85	5.47	9.11	6.62					
2005	-	9.34	18.38	10.69	2005	-	4.68	8.85	6.74					
2006	-	-	7.34	5.42	2006	-	-	5.81	9.24					
2007	-	-	-	7.79	2007	-	-	-	5.91					

Table 5. Mean distance for efficient portfolios identified in the previous year respect to the new efficient frontier constructed using different concentration constraints Source: AICA data processed by author

The choice of imposing a wider diversification limit determines a relevant reduction in the distance between the efficient frontier calculated over the t moment and the result in terms of return and risk at the time of identified portfolios over $t-i$ time. Constraints not too much penalizing (max concentration 50%) cause a decrease in the mean distance of more than 35% while the choice of highest diversification constraints (like 5%) could cause a reduction in the mean distance from the frontier of more than 90% for some of the years analysed^[5].

CONCLUSIONS

Hotel investments have heterogeneous characteristics in the respect of other kind of properties, which may significantly affect the extent and the variability of the performance.

The proposed analysis demonstrates the utility of criteria on sector/geographic diversification in order to create efficient portfolios, even if the best portfolios have inner investments with different characteristics but a not too high diversification level. Constraints on the maximum concentration level towards certain typologies of hotels determine a lower efficiency of the constructed portfolios, even if the performances of new portfolios result more persistent over time.

The importance of the phenomenon is particularly relevant in relation with the increasing presence in Europe (Peters and Frehse, 2005) and in Italy (Jones Lang Lasalle Hotel, 2009) of hotel chains that can decide to purchase or to realize an hotel, on equal terms, also in function of the characteristics of the portfolio already invested.

The European development expected by institutional investors, specialized in the hotel sector (Bader, Geierregger and Balekjian, 2008), which consider the investment, unlike the hotel chains, only on the basis of project cash flows, makes the proposed approach valid. Results from the Italian market also help to understand the reasons under the strategy of low sector/geographic diversification of several funds currently active in this country.

As in other researches, the main limit of this work is due to the unavailability of detailed information about the structure costs of each hotel. Hypothesis on structure costs, taken into consideration in this paper, have been supported by references on national and international literature and may be considered acceptable. Nonetheless, the availability of internal data about costs (fixed, semi fixed and variable costs) incurred by hotels will enable to obtain more objective evaluations of the benefits coming from the diversification.

In order to complete the diversification analysis in the Italian hotel sector, next developments on research could take into account, as already carried out for properties in general (Cacciamani, 2003; Giannotti and Mattarocci, 2008), the possibility to itemize the criteria for the classification of the investments. The chance to realize such approach presumes the availability of a wider database in terms of registered information and noticed hotels.

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Endnotes

^[1] Further information about performance results of main Italian tourist centres in respect of others international realities is to be found in Deloitte, 2008 among the others.

^[2] Further information on hotels joining AICA at www.aica-italia.it, the association web site.

^[3] At December 2007, Italian institutional investors specialized in the hotel sector are Delta (FIMIT SGR), Baglioni (Sorgente SGR), Hospitality and Leisure (Pirelli RE SGR), Cosimo I (Castello SGR), Real Venice (Est Capital SGR), H1 (Beni Stabili SGR) and Italian business hotel (BNP Paribas SGR).

^[4] Over the examined period Sassari province embodied the current Olbia-Tempio province and five stars structures that during last three years determined extremely good results are related to Porto-Cervo area.

^[5] Similar results are obtained considering other types of descriptive statistics on the distance efficient portfolio at time t-i respect to efficient portfolios identified at time t.

COMMERCIAL VALUE CREATION FOR SERVICE COMPANIES IN FACEBOOK (AND THE OTHER ONLINE SOCIAL NETWORKS)

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This paper is describing an ongoing research that intends to analyze the best routes that companies should take in order to get into consumers' conversations within Facebook (and the other social networks) in a way that will benefit both sides. Encouraging and influencing this electronic World of Mouth can generate substantial commercial value.

The commonly-used "push" approaches that are currently used by most of the vendors in the online social networks are creating negative responses and this research is looking for the expeditors that will make the social networkers willing to participate in a commercial electronic Word of Mouth. This research is focused around service companies, since eWOM is much more critical for these companies.

Keywords - Social networks, Facebook, eWOM, Services companies

INTRODUCTION

Online Social Networks have become the most popular online destinations in recent years. Facebook, as the largest social networking site in the world, is the 10th most popular website in the US (ComScore, 2009). It has 250 million active users (users who were active within the last month) with 70% growth in the last year and more than 100 million out of them that are accessing it at least once a day (Facebook statistics, 2009). If it was a country, it would be the 4th largest in the world (Based on the number of inhabitants). The majority of the consumers' community, for most companies, is now accessible in Facebook.

With the latest technological developments, Facebook is now accessible via smart-phones, has open interface to other sites and applications (Facebook-Connect) and is supported by monetary applications (Facebook Payments and others).

The popularity of Facebook and its recent enhancements have created a very attractive commercial infrastructure. In a recent survey (Stelzner, 2009), an overwhelming majority (88%) of marketers said that they are now using some form of social media to market their business (72% of those have just started to do it in the last few months). Still, the majority of these companies are using traditional mass-market push strategies for advertising and selling their goods and services (using the Facebook Advertisement mechanism and opening a "Group" for the company) while others are trying more advanced approaches, such as viral spread of their brand awareness, guerrilla marketing and others. All these approaches have not yet yielded the desired ROI for the majority of the companies.

From the users' perspective, this "push" approach creates a negative attitude towards the social network, and users that perceive the social network to become "vendor polluted", leave or switch to another network.

Marketing within a social network should be very different than traditional approaches and should become much more conversational, bi-directional or even multidirectional. It should be based on building relationships, rapport and trust between the company and the consumers and as a result much more transparent (from the company perspective). The reason traditional

marketing and advertisement approaches are becoming less and less effective is exactly because consumers lost their trust in what companies are telling them.

In order to develop a better approach for both companies and the Facebook users, this research is going to analyze the routes of getting into consumers' conversations in a way that will benefit both sides. Getting into these conversations is very important today in order to get into the consumers' consideration set, because of the shrinking effect of traditional advertisement.

Looking at it from a different perspective, most of the Facebook users (and the other social networks) are connecting to each other in order to share ideas, thoughts and content (mainly photos and music). Making this sharing process, the Electronic Word-of-mouth (e-WOM), valuable for commercial use, is the heart of this research.

Word of Mouth (both traditional and electronic) is very critical in the decision making of consumers. According to Nielsen (2007), "consumer recommendations are the most credible form of advertising among 78% of the study's respondents". In another survey that was done by the Kelsey Group (comScore /The Kelsey Group, October 2007) "review users noted that reviews generated by fellow consumers had a greater influence than those generated by professionals". To add to that, the concept of influencers is becoming much wider in the online social network. It's no longer just the "expert" that is influencing but it's also other influencers such as the best networker (with a large social network), the most attractive blogger and others.

This research is analyzing the main factors that expedite commercial e-WOM in Facebook and figure out the real possible commercial value for companies. The research focuses on service companies, since WOM is more critical for these companies, compared with product companies (Friedman, Margaret, Smith, 1993). The research intends to find out what the online networkers' desires and needs are (in a segmented way) in order to realize what it is that they want in return for sharing commercial information with their peers.

LITERATURE REVIEW

The description and history of Facebook and the competitors

Facebook was founded in February 2004 as a social network for Harvard students, opened to the public in 2006 and is today the biggest online social network in the world. One of Facebook's main differentiators are the 52,000 applications currently available that are developed by a community of more than 660,000 developers and entrepreneurs from more than 180 countries (Facebook Statistics, 2009). Facebook's biggest competitor, MySpace, was founded in 2003 and launched in January 2004.

In addition to the biggest networks, there are hundreds of other networks, some of them are targeting specific segments, such as LinkedIn that is a professional network, and others. In addition to those, there are new social network applications that are becoming trendy, the latest is Twitter, a micro blog application that enables users to send and read other users' updates (Wikipedia Twitter, 2009).

The business model of all social networks today is based on revenues generated by advertising, beside Facebook that launched Facebook Gifts, which enables networker to exchange virtual gifts they're buying. Facebook is making around 30M\$-40M\$ a year from selling these gifts (InsideFacebook, 2008).

There is not much academic research that has been done on the marketing and business aspects of the online social networks. Facebook and the other social networks became very popular only in the last couple of years, and the interest around them grew hand in hand with their popularity. The majority of the research that took place on Facebook (or the other online networks) was focused on the social aspects of this new and unique phenomenon.

Also, with the rapid development of the electronic social networks in the past few years, some of the research that exists, was done on “networks” that are different than Facebook (such as: company forums, blogs and messaging platforms) which makes the direct concluding into the Facebook world questionable.

Participants: individuals and companies

In order to look into possible segmentation of social networkers, one needs to analyze the Social network users' characteristics and their participation habits within the online conversation. Although Facebook is a global tool and as a result represents a global social network, there are differences in usage between experienced-advanced networkers, usually from developed countries/areas, and beginners-basic networkers, usually from developing countries/areas (Majharul Talukder & Paul H P Yeow, 2007). There are other demographic parameters (such as gender, race, ethnicity and parental educational background) that are correlated with the level of participation in social networks (Hargittai, 2008) and as a result might influence the “needs” that each of these segments is trying to fill.

Although Facebook is considered to be a tool for young people, more than two-thirds (and growing) of its users are outside of college and the fastest growing demographic among its users is those 35 years old and older. The average user has 120 friends and spends 35 minutes a day on Facebook. More than 20 million users update their statuses at least once each day and more than 850 million photos and 8 million videos are uploaded to the site each month (Facebook Statistics, 2009).

Analysis of the participants' motivation

The reasons that drove hundreds of millions of people to register to the social networks and are still driving the majority of them to access and interact with others on a daily basis is an important building block in understanding the social network consumer behavior.

Recent research shows that using the internet for social purposes (such as the online social networks) reduces people's feeling of loneliness and depression, feeling that the modern world and specifically non-social internet usage amplifies (Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukopadhyay, T., & Scherlis, W., 1998), as well as helping people's self-esteem and their perceived social support (Bessière, K., Kiesler, S., Kraut, R., & Boneva, B.S., 2008; Lindsay H. Shaw, Larry M. Gant, 2002).

Facebook specifically was found to benefit people with low self-esteem and low life satisfaction, but moreover is creating and maintaining social capital for the larger population (Nicole B. Ellison, Charles Steinfield. Cliff Lampe, 2007). This sociologic phenomenon can be partly explained by the fact that many traditional social networks disappeared over the last few decades as a result of the existence of the internet since people prefers to spend time online instead of interacting with their families and friends (Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukopadhyay, T., & Scherlis, W., 1998). According to Nick Couldry and James Curran's findings (2003, p.279) some of the traditional physical social networks (such as

meeting with friends in the food market) got “replaced” by online appearances of these networks.

Despite the fact that we might look at different sets of needs within the social networks, there seem to be one main desire and this is that people would like to feel a part of a group and have social interactions with individuals within the group. These interactions are huge in volume. There are more than 1 billion pieces of content (mainly web links, news stories, blog posts, notes and photos) that are shared each week in Facebook (Facebook statistics, 2009).

The parts of the conversation that has commercial implications are:

- The “conversation” between consumers and companies/brands
- The “conversation” between consumers about companies/brands

Despite what one can think, there seem to be a mutual interest in having conversations between the companies and the consumers. This interest is as a way of transferring information and reducing the risk/cost of future business transactions. Brand-related information can also be entertaining.

Electronic Word of Mouth

World of mouth was always a critical factor in success of products, specifically in the diffusion stage of new products (Czepiel, 1974) and it's been discovered that the participation and drivers of the traditional WOM (in pre-internet world) were replicated into the electronic WOM (Hennig-Thurau, Gwinner, Walsh & Dwayne, 2004). The WOM is even much more critical for services companies, compared to Product companies (Friedman, Margaret and Smith, 1993) which might be a result of the non-tangibility of services that is making the experience reporting very important.

Facebook as a social network is relatively a weak and static network. The relationships between the “friends” are not very strong (in terms of the amount of information that they exchange or other “relationship strength” characteristics) in average and the network of a specific member is not changing much. In addition to that, Facebook is a “public” network, where information that can be treated as private is published around the network (Skinstad, 2008). The publicity as well as the weakness of Facebook as a network have probably an effect on the level and depth of the WOM that is happening there.

In general, social networkers have different eWOM habits and behavior as a result of their social network structure (can be classified by how strong their ties are, what their position in the network is or other classification). For instance, eWOM participants will be more willing to share information in a dense network, compared to a sparse network (Dongyoung Sohn, 2009).

The importance of e-WOM, as a replication of the traditional WOM, is something that was researched in the last years, and was proven to be significantly positive related to consumers' attitude, trustworthiness and loyalty towards a firm, a brand and/or a product (Gruen, Osmonbekov & Czaplewski, 2006; Mathwick, 2006). From the other side, although online communities are an important part of eMarketing for companies (Armstrong and Hagel 1996; Young and Levine 2000), companies have almost no control over the conversation. The conversation can involve any part of the marketing functions (e.g. product or price), and as a result it is more of a situational function rather than a basic one (Kalyanam & McIntyre, 2002; David Godes & Dina Mayzlin, 2004).

Despite its complexities, companies are interested in participating in the eWOM conversation in order to be aware of the conversation topics, influence this conversation, provide information

and knowledge to this conversation and also address negative eWOM that might hurt the company. eWOM is a self-feeding process where positive experience in “talking” with a company will increase the trust and loyalty of the participants, which will result in a higher willingness to “talk” with and about the company (Mathwick, 2006). Although trust is a key issue in social networks, it’s not as important in building new relationships in the online networks as it is in face to face relationships (Dwyer, Hiltz & Passerini, 2007).

In addition to that, there are other factors that assist in creating more interactive conversation and as a result better commercial interactions between companies and consumers, such as the personalization of the messages, its relevancy to the consumer and the company’s response time to consumers’ requests (Ji Hee Song & George M. Zinkhan, 2008). Other research indicated that consumers would like to be entertained and feel confident in the online commercial environment in order to be more active (Goldsmith, Bridges & Freiden, 2001). It’s reasonable to assume that these factors will also have an influence on the willingness to share commercial information.

Marketing tools used in social network

The majority of the “marketing” within the social networks today is invested in advertisement. Still, there are other ways that are currently used in order to get better results.

One of the things that have started to be researched is the efficiency of monetary encouragement on commercial conversations (and specifically on references by people that used a product/service). The monetary benefits can be provided to either the recommender, the receiver of the recommendation or both, and it looks like the strength of the existing brand is influencing the most efficient compensation mix (Gangseog Ryu & Lawrence Feick, 2007). The addition of financial benefits (and benefits in general) into the social network conversation is tricky since it can make the whole conversation be less genuine (at least by perception). Providing too many incentives for encouraging product recommendations can weaken the credibility of the information sources (Leskovec J., Adamic L. A., Huberman, B. A., 2007).

Despite this possible backfire effect, some companies (Facebook Chase, 2009) already started to provide credit points that can be redeemed for presents. Facebook-Gifts is also a mechanism that has started to be used for providing “tokens of appreciation” between networkers or between companies and consumers.

There are other creative ideas for increasing online consumers’ confidence, ideas that have been used and researched in the last few years. One of these is the use of Avatars (graphical representation of the company’s representative) for influencing the online surfers’ behavior. Since a company is an entity that is difficult to “feel” or create relationships with, the use of a human-representation of the company has proven to increase the satisfaction, positive attitude and purchase intention of the online shoppers.

The type of avatar that made the most influence (attractive or expert) was found to be correlated with the consumer involvement level with the specific product (Holzwarth, Janiszewski, & Neumann, 2006). These findings are reasonable and are similar to traditional advertisement source decisions. The consumer involvement level is a factor that is probably influencing the amount and type of information that networkers will be willing to share or receive in the commercial eWOM.

Commercial participation in social network conversation also brings to the front the area of Relationship Marketing, a long-term well-maintained relationships between a company and its customers.

In order to build the level of trust and transparency that is needed for the consumers to feel comfortable with companies participating in what is considered a not commercial environment (such as Facebook), companies should invest in doing Relationship marketing right. Relationship marketing is an area that was discussed a lot but is not always implemented in a way that benefits both sides. In recent research it was confirmed that the quality and strength of the relationships were the most influencing factors on the commercial results from this customer. This research also found that Relationship Marketing's effectiveness also increases when the relationships are critical to the customer (in service offerings and business markets, for instance) and when there is an individual (from the company side) that is managing the relationships, rather than "a company" (Palmatier, Dant, Grewal & Evans, 2006). This can also be related with the efficiency of Avatars that I've discussed before.

Another method that is relevant for transferring commercial information in social networks is Viral marketing. In Viral marketing, the company is creating an attractive content that is being published within the network from one member to another (like a virus). The positive effect of Viral marketing in social networks on the adoption of products (mainly new products) was proven in research that was done last decade (Rogers, 1995; Strang & Soule, 1998) but the exact "formula" of what kind of message should be transferred to which "entry point" within the network was still not found.

One of the aspects of Viral marketing that was researched was a result of the fact that not all the members of the network have the same "value" for a company. Companies should analyze the optimal amount of marketing that should be invested in each of the members (Richardson & Domingos, 2002), since marketing has a cost and there is also a negative effect to transfer "too-much" of viral marketing through the network. Viral marketing was a big hope for companies that believed that it can be used in order to "manipulate" the consumers' market, but recently research shows that it's not that epidemic and that efficient as was previously presented, especially in promoting product sales (Leskovec J., Adamic L. A., Huberman, B. A., 2007). As a result, learning the real "needs" of the social networkers and provide more transparent and honest "conversations" is the best way.

Additional traditional approach that is being used in the social networks is Guerilla marketing, a concept that involves creative and not predictable sets of marketing activities. This "tool" can generate an interest for smaller companies with low marketing budgets since it's usually pretty cheap (Dalgic & Leeuw, 1994). Using Guerilla marketing in social networks can generate one-time success but is against the fundamentals I've discussed before that involves persistent, honest and transparent approach of both the social networkers and the companies.

Key success factors influencing the effectiveness of used marketing tools

Although Social marketing can be very beneficial, effective online marketing campaign should be a coordinated effort of different "marketing tools" (one of them would be social marketing), both online and traditional (physical advertisement, for instance). Innovation and support from the company's management are both affecting the ability of companies to create an appealing online campaign (Youcheng Wang Daniel R. Fesenmaier, 2006). Still, the marketing activities in the Internet world have to be different than the traditional sales and marketing approaches in order to create an appealing offer for the customers (Schubert P., Selz, D., 1999). Since the internet is such a virtual and non-personal medium, almost all the research is indicating the importance of trust as a main success factor to participation of people in the internet world (mainly for socializing or participating in commercial activities).

Measurement of online marketing activities in social network WOM

Doing marketing in Facebook (and in the other social networks) is a very trendy thing, but companies have to make sure that they can measure the effectiveness of the marketing investment they're doing in this "media". The marketing effectiveness should be measured against the goals of the marketing campaign/program, since these marketing efforts should, in the end of the day, generate better financial results for the company (Doyle, 2000). Defining the goals in campaigns like that, especially talking about long-term relationships-building is something that its marketing effectiveness measurement can be challenging (Gordon, McKeage & Fox, 1998).

DESCRIPTION OF THE METHODOLOGY

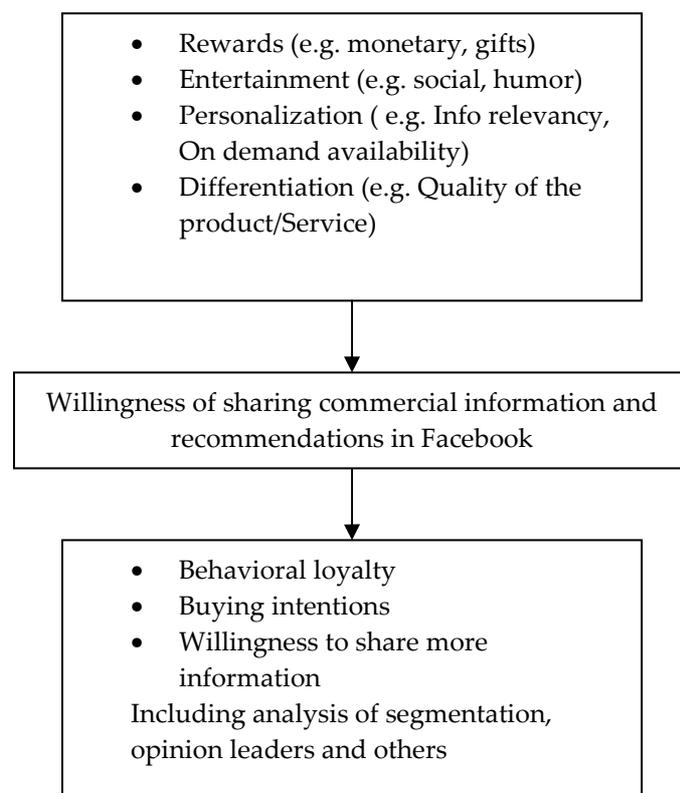
This ongoing research is divided into three main stages:

1) Depth interviews and focus groups with marketing executives from the social network vendors, executives from companies that are doing marketing in Facebook (both successfully and unsuccessfully) and heavy users of Facebook.

The input of these interviews is used in order to figure out the main goals of companies when marketing to the social networks and the methods that were used already, both successfully and not successfully. In addition in the first phase provides first understanding of possible factors that influence networkers when participating in WOM.

The rationale behind the first stage is figuring out things that we don't even know that we don't know, mainly since this area of research is so new. For instance, visual representation of the company "icon" in Facebook might be found as influencing the trust of the company (something that was hard to predict in the pre-Facebook era).

2) Quantitative research that is conducted by submitting online questionnaires within Facebook. The Facebook users' are asked about their usage habits of Facebook, eWOM habits, level of interest in relationships with the vendors within Facebook, the benefits that they want to get in order to share their "buying" recommendations/experience, eWOM recommendations/references as a driver in their buying decisions and the effectiveness of eWOM with services companies



The conceptual model of this research is:

In order to normalize the answers of the responders from different countries and cultures, the Anchoring Vignettes technique (King, Murray, Salomon & Tandon, 2003) is used in this research. For instance, measuring Loyalty to a company might result in different scales by people from a "long-term oriented" Confucian dynamism culture (Geert Hofstede, 2001), such as Japan that will be much more trustworthy compared to people from a "short-term oriented" culture, such as the USA.

3) A post-questionnaire Focus group is going to be conducted in order to verify the results of the research (Powe, Garrod & McMahon, 2005).

FINDINGS OF THE RESEARCH

The research is still ongoing and based on the initial feedback from the first phase of the research it's clear that Facebook users are still very negative with regards to "push" commercial use of the social network. They use Facebook much more than any other social network and use it mainly for social use. A phenomenon that seems to be interesting for further research is the fact that many users are claiming that Facebook is wasting their time and has no value, but still use it on a weekly basis.

Facebook users are exposed to advertisement but are ignoring its content. From the other end, users see value in recommendations from their peers (mainly their close "friends" within the network) and also from connection with the vendors. Still, users are not willing to share information unless they get something in return. Monetary rewards or gifts have been identified as possible rewards side by side with other less-monetary rewards, such as: information and content.

The same phenomenon that I mentioned above seem to exist also when asked about information sharing and its value. When asked in general about the concept, users are relatively negative, but when asked specifically about possible benefits and awards, users seem to see the value and are willing to share information in return to various awards (not necessarily monetary).

The quality of the actual service/product seem to also influence the willingness of the Facebook users to share information, as well as the attractiveness of the commercial information that is being published to them. This indication shows the connection of the social media to the marketing mix and also suggesting that activities in the social network can't be disconnected from activities done in other types of media.

First indications of the research seem to show the willingness to share information with both services and products. The effectiveness of this information in both areas has not yet been analyzed.

SUMMARY

Facebook and the other social networks are representing an incredible potential for companies. These would like to encourage electronic word of mouth between users and also conversations between the users and the companies.

The users of the social networks are very sensitive to any commercial intervention but from the other end can see the value in information sharing between users and companies and among users.

This research is looking for the expeditors that can make the commercial communication valuable for both companies and users for long term by researching the users and trying to understand their underline needs and desires.

From the initial stages of the research it seems that real value creation and minimal or no “pushiness” from the vendors’ perspective can make a difference. In addition, long-term view and honesty in addition to consistency in the various marketing mix components increases the attractiveness of the social media information to its users.

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EXAMINING UNIVERSITY EFFICIENCY: THE CASE OF GREEK ENGINEERING DEPARTMENTS

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Purpose - A long discussion exists on the measurement of university efficiency. As universities are non-profit organisations the usual purely financial measures of efficiency are not applicable nor a typical production function is available. A non-parametric method that combines multiple inputs with multiple outputs seems to be fitting the problem. Data Envelopment Analysis (DEA) is such a linear programming technique that can be used for the calculation of relative efficiencies and best practice cases.

Design/Methodology/approach- The study is based on the analysis of 30 Engineering Departments in Greece. DEA is used to calculate efficiency scores for each department and to identify the best performing cases. For each non efficient department the method indicates improvements that could be set (targets) based on the similar efficient departments (reference set).

Findings - Results indicate high technical efficiency for many departments. Some departments seem to be continuously on the efficient frontier, i.e. 100% efficient. Scale effect does not seem to be present. Average efficiency seems to be falling in 2004 and rising in 2005. Specific improvements are proposed for the non efficient departments.

Practical Implications - The approach followed allows for the identification of the less efficient departments and the elaboration of an improvement plan for each of them. It can therefore contribute to the overall efficiency increase of the higher education.

Keywords: efficiency, data envelopment analysis, university performance

INTRODUCTION

A long discussion exists on the measurement of university efficiency. Universities are complex institutions aiming at producing both, knowledge and research and are mostly public financed. Due to the impact of the operation of universities to the economy and society of a country and the need of the universities for public funds, there is a public and governmental pressure for efficiency evaluation, improvement and efficient use of public funds.

As universities are non-profit organisations the usual purely financial measures of efficiency are not applicable nor a typical production function is available (Abbot and Doucouliagos, 2003). Several index or ratio based approaches exist but in general it is not easy to determine the overall efficiency since it is not possible to combine the entire set of ratios into a single numeric judgment. Moreover, although several indexing approaches exist, there is not a widely acceptable composite index approach (Arcelus and Coleman, 1997). On the other hand, the simultaneous analysis of such ratios may give ambiguous results and such ambiguity makes ratio analysis ineffective in efficiency evaluations (Sexton, 1986). Additionally, these approaches can hardly be used as a means for the identification of improvement potential for each specific university, as they can not distinguish inefficiency from environmental factors.

Statistical approaches, such as regression analysis, although applied in literature (e.g. Lovell, 1993, Førsund et al., 1980, see also Brinkman and Leslie, 1986) impose the knowledge of the function and are beset of possible misspecification (Johnes, 2006). Additionally, they can hardly be applied in the case of multiple outputs, as in higher education. Finally, regression analysis

based estimation provides estimates according to the “central tendency” behaviors of the observations and not according to the best performance (Cooper et al., 2007).

As a consequence, a non-parametric method that combines multiple inputs with multiple outputs seems to be fitting the problem. Data Envelopment Analysis (DEA) (Charnes et al., 1978) is such a linear programming technique that can be used for the calculation of relative efficiencies and best practice cases. DEA does not make any assumptions regarding the distributions of efficiencies or the functional form of the production function.

Data envelopment analysis is an estimation method, which since its appearance in 1978, has been widely applied due to the satisfactory measurement of efficiency that provides and the advantages that has vis-u-vis the other estimation techniques. Since then, many organizations (both non-profit and profit making) have used DEA to measure their efficiency since this method can indicate solutions to improve efficiency. The literature review shows that DEA has been applied for efficiency measurement of banks (Halkos & Salamouris, 2004), academic libraries (Reichmann, 2004), insurance companies (Tantan et al., 2000) and health sector (Hofmarcher et al., 2002) (see Cook and Seiford (2009) for a comprehensive review of applications).

In the domain of higher education DEA has been applied mainly in two directions (a) efficiency estimation at university level (Agasisti & Dal Bianco, 2006; Taylor & Harris, 2004; Sinuary-Stern et al., 1994) and (b) efficiency estimation at department level (either departments of the same universities or similar departments of different universities) (Kao & Hung, 2008; Martin, 2006; Beasley, 1990). As it shown in Table 1, different inputs and outputs have been applied per case aiming at capturing the multiple input / multiple output characteristics of the higher education.

This study applies Data Envelopment Analysis to the Greek universities over a three year period (2003-2005). Literature review reveals limited application of DEA to Greek education cases with only two studies dealing with secondary education. Maragos and Despotis (2004) used DEA to measure the efficiency of 60 public high schools out of 219 operating in the Greater Athens Area. Smirlis et al. (2006) introduced an approach based on interval DEA, developed for the case of missing values of inputs and outputs. They applied this methodology to 29 public secondary schools of Athens. According to our knowledge there exists no similar evaluation of Greek higher education institutions.

The following part of this paper is structured as follows: In Section 2 the DEA framework is shortly presented and the application to the Greek university departments is analysed. The data set and the research design are described and model building issues are dealt with. The results of the application are given in Section 3. Some discussion on the application of DEA for efficiency follows in Section 4.

<i>Author(s)</i>	<i>Sample</i>	<i>Input measures</i>	<i>Output measures</i>
<i>Beasley (1990)</i>	<i>Chemistry and physics departments, United Kingdom</i>	<i>General expenditure, equipment expenditure and research income.</i>	<i>Undergraduate and postgraduate students and research ratings.</i>
<i>Johnes & Johnes (1993)</i>	<i>36 U.K. university economics departments</i>	<i>Teaching/research and research only staff, per capita research grants, per capita undergraduate student load.</i>	<i>Papers and letters in academic journals, articles in professional and popular journals, authored and edited books, published official works, contributions to edited works.</i>

<i>Sinuary-Stern et al. (1994)</i>	21 departments of Ben-Gurion University, Israel.	Operational expenditures and faculty salaries.	Grant money, number of publications, number of graduate students and number of credit hours offered.
<i>Arcelus & Coleman (1997)</i>	32 university departments, Canada.	Teachers, support staff, operating and library expenses.	Average enrolment per class, sections, FTE number of undergraduate and graduate students, number of undergraduate and graduate students receiving their degree in a year.
<i>Athanassopoulos & Shale (1997)</i>	45 U.K. universities.	General academic expenditure, research income, number of FTE undergraduates, postgraduates and academic staff, mean A-level entry score over the last 3 years.	Number of successful leavers and higher degrees awarded, weighted research rating.
<i>Moreno & Tadevall (2002)</i>	42 departments of an American university.	Faculty salaries, staff salaries, operational budget, equipment budget, building space.	Graduate majors, undergraduate majors, full time equivalents produced, student credit hours, grants awarded.
<i>Abbott & Doucouliagos (2003)</i>	36 universities, Australia.	Total number of academic staff, number of non-academic staff, expenditure on all other inputs other than labor inputs, non-current assets value.	Number of equivalent full-time students, number of post-graduate and under-graduate degrees enrolled and conferred, Research Quantum Allocation.
<i>Taylor & Harris (2004)</i>	21 universities, South Africa	Total expenditure, capital employed, student and staff numbers and adjusted expenditure.	Degree credits plus units of research output.
<i>Warning (2004)</i>	73 publicly funded universities, Germany.	Expenditure on personnel, other expenditures.	Citations index for publications, graduates.
<i>Afonso & Santos (2005)</i>	52 Portuguese universities/faculties/institutes.	Average total spending per student, teachers-to-students ratio.	Success rate of the students enrolled, number of PhD certificates.
<i>Agasisti & Dal Bianco (2006)</i>	58 Italian public universities.	Average number of students and teachers, public funds, number of 'regular students'.	Number of graduates, external research grants and contracts, number of Formative Credits, proxy for the success in the attraction of funds.
<i>Martin (2006)</i>	52 departments of the University of Zaragoza, Spain.	Human resources, financial resources, material resources.	Teaching indicators, research indicators.
<i>Köksal. & Nalçacı (2006)</i>	14 departments of a Turkish engineering college.	Academic staff salaries, potential of the department, entering students.	Research and education activities and quality, other activities, graduates.
<i>Kao & Hung (2008)</i>	41 academic departments at National Cheng University, Taiwan.	Personnel, expenses and floor area.	Teaching loads, publications and external grants.

Table 1. DEA applications in higher education

METHOD AND DATA

Efficiency measurement through Data Envelopment Analysis

Charnes and Cooper (1985) gave the following definition of efficiency: "100% efficiency is attained for a unit only when: a) none of its outputs can be increased without either increasing one or more of its inputs, or decreasing some of its other outputs, b) none of its inputs can be decreased without either decreasing some of its outputs, or increasing some of its other inputs." Farrell (1957), who is considered to be a pioneer at the measurement of productive efficiency, defines technical efficiency as the success of a firm in producing maximum output from a given set of inputs or alternatively, producing a given output with minimum quantities of inputs. Allocative efficiency measures the ability of a firm to use the best combination of inputs which minimizes cost given input prices. The combination of technical and allocative efficiency provides economic or "overall" efficiency.

Initially, efficiency was studied only through conceptual approaches without giving any attention at the identification of inefficiency. DEA originated from Farrell's work (1957), in which he introduced an alternative approach and showed how efficiency could be measured using empirical data and without making any assumptions about the functional form of the technology. Charnes et al. (1978) extended Farrell's work and succeeded in using multiple inputs and outputs and providing a single measure of efficiency.

Data Envelopment Analysis is a linear programming technique used in measuring the relative efficiency of similar units when multiple inputs and outputs are present. Since it is a non-parametric technique, it is not necessary to specify the production functional form in advance. DEA is applied to a set of homogenous Decision Making Units (DMUs) which aim at producing the maximum quantity of outputs for any given quantity of inputs or alternatively, producing a given quantity of output given a minimum quantity of inputs. For each of the examined DMUs is calculated the following equation:

$$\text{efficiency} = \frac{\text{weighted sum of outputs}}{\text{weighted sum of inputs}} \quad (1).$$

The efficiency score is on a scale of zero to one, meaning that the higher the score, the more efficiently the unit operates. The units with an efficiency score equal to one are considered to be the "best practices" and form the efficient frontier which 'envelops' the inefficient DMUs. The 100% efficient units form the so called 'reference set' which sets the targets for the inefficient units. Each inefficient DMU has its own reference set and is compared against all its 100% efficient DMUs.

DEA is a very useful tool for policy-makers or administrators because it can identify the units with best performance and provide an understanding of the reasons that the others units were less efficient. Furthermore DEA provides direction for improving efficiency and achieving excellence through input reduction or output rise.

There are different types of models and the choice of which one to use depends on the character of the data and the process which is being analyzed. On the basis of the envelopment surface, the models are classified into CCR (Charnes et al., 1978) which is built on the assumption of constant returns to scale (CRS) and BCC (Banker et al., 1984) which is an extension of the former and assumes variable returns to scale (VRS). The CCR model measures technical efficiency which represents inefficiencies due to the configuration of the inputs and outputs (pure technical efficiency) as well as to the size of operations (scale efficiency), while the BCC model measures pure technical efficiency only. The orientation of the model is another matter for selection and shows the movements towards the efficient frontier, or in other words

how improvements can be done. Accordingly to the orientation, the inefficient DMUs can improve their efficiency either by reducing their inputs without changing the outputs (input-oriented) or by raising the outputs without changing the inputs (output-oriented).

In its original version (CCR model), technical efficiency was measured by solving the following fractional programming problem:

$$\max h_0 = \frac{\sum_{r=1}^s u_r y_{ro}}{\sum_{i=1}^m v_i x_{io}} \quad (2)$$

$$\text{subject to: } \frac{\sum_{r=1}^s u_r y_{rj}}{\sum_{i=1}^m v_i x_{ij}} \leq 1 \quad \text{for each DMU in the sample}$$

$$u_r, v_i \geq 0$$

where: u_r, v_i are the weights given to outputs and inputs, respectively, y_{rj} is the level of the r -th output from unit j , x_{ij} is the level of the i -th input from unit j , $r = 1, \dots, s$ is the number of outputs, $i = 1, \dots, m$ is the number of inputs, $j = 1, \dots, n$ number of DMUs.

The weights for inputs and outputs are v_i and u_r respectively and their values are unknown. DEA sets these values during the procedure of optimisation, however, if needed, the analyst can impose weight restrictions on inputs and outputs. Several extensions of the model exist. For more details the reader can refer to (Cooper et al., 2007).

Application of DEA to the Departments of Greek Technical Universities

Data set and research design

The study is based on the analysis of 30 Engineering departments¹¹⁸ of Universities and Technical Universities in Greece, each of them considered to be a DMU. These DMUs are listed in Table A1 in the Appendix. The study focuses only to the engineering departments due to the requirement that cases/units are homogeneous in the sense that they are undertaking similar activities and producing comparable products or services so that a common set of outputs can be defined (Dyson et al., 2001). The period of analysis is for three consecutive academic years (2003-2005).

The selection of inputs and outputs used in a DEA study is an important step. They must be congruent with the objectives of the educational institutions while data availability and reliability should also be considered. Table 1 reveals that there is not consensus on the employed variables. In this study, the selection of variables considers that the two missions of a university are to explore and transmit knowledge and are achieved through research and

¹¹⁸ The departments which started their operation after 1999 are not included in the data set because their 'production' of graduates began after 2004, whilst the period of analysis of this study begins from 2003.

teaching (Kao & Hung, 2008). Therefore, the outputs have been selected so as to measure the results of teaching and research:

A research indicator used in this study is the number of publications in scientific journals. It reflects the research activity of the departments and is considered to be the most important output of research activity (Kao & Hung, 2008; Johnes & Johnes, 1995). We accounted the articles that have been published in journals appearing in the Scopus database¹¹⁹. Considering that there is a lag between the research activity and the publication we estimated as an average this lag to be one year. Search was performed according to institution name (official name and variations due to translation of name from Greek to English). A total of 3518 papers has been identified for years 2004 – 2006.

Another indicator that provides information about the quality of research activities is the measurement of the citations. We measured the number of citations of the publications of each department. Scopus database was again our source. A lag of one year was also taken, since the citations consist an indicator closely related to the publications. A total of 15009 citations has been identified for years 2004 – 2006.

Publications and citations reflect research results. In order to capture teaching results we employed the number of graduates and the number of postgraduate (PhD and MSc) certificates offered. The data were collected from the National Statistical Service of Greece.

The selection of the inputs has been based on the idea that the two main necessary factors for the operation of the educational institutions are staff and funding. Two of the inputs used are the academic and non-academic staff. Contrary to some approaches, like the one of Martin (2006), which do not take into account the non-academic staff because it does not participate in the teaching process, in this study, non-academic staff is used as an input measure as it is considered to participate indirectly in the teaching process through its supplementary role. A third input employed is the number of students (both undergraduate and postgraduate ones). These data were also collected from the National Statistical Service of Greece.

Another type of input are the financial resources. We use budget funds as input to represent financial resources. This variable does not include the staff salaries since they depend on the academic rank of faculty members and is highly correlated to the number of the personnel. The research grants is the fifth input used in this study even though there are researchers that who consider it as an output (in the sense that a more efficient department attracts more grants). There is a great controversy in literature between those who use research grants as an output (Sinuary-Stern et al., 1994; Abbott & Doucouliagos, 2003) and those who use it as an input (Johnes & Johnes, 1995). In this paper, research grants are considered to be an input in the research process because it is a resource used to produce outputs like publications. If publications and research grants are both used as outputs then we double-count (Johnes & Johnes, 1995). Budget and research related data were provided by the financial offices of the Universities.

Finally, following what appears as a 'rule of thumb' in literature, we ensure that the number of DMUs is at least as twice as large as the sum of number of inputs and outputs (Dyson et al., 2001, Yang and Chang, 2009). This rule assures sufficient degrees of freedom and a great discriminating power for DEA, so that the efficiency scores are meaningful. In general, the more inputs and outputs are included in the model, the higher will be the number of DMUs with an efficiency score equal to unity (Nunamaker, 1985).

¹¹⁹ www.scopus.com

Model and variable selection

Before applying DEA a correlation analysis was performed in order to ensure that we do not employ correlated variables and, in this way, that we avoid double counting. Correlation analysis shows that publications are highly correlated to the citations. This result is not strange, since the two outputs represent the same phenomenon: the research production. As a consequence, we chose to drop out of the variable set the citations because publications are considered to be a better indicator for research.

Research grant data was not available for all departments. More specifically research grant data was missing for the departments of University of Thessaly, the Aristotle University of Thessaloniki and the Technical University of Crete. As a result, we decided to perform our analysis in two parts: (i) Examine only the departments where we have all the information (we called this Mix 1) and (ii) Examine all the departments but use only the available information (Mix 2). Consequently, Mix 1 was composed by 17 departments. Due to the above mentioned 'rule of thumb', the number of variables used as inputs-outputs should be adjusted. After correlation analysis, non-academic staff seemed to be the most appropriate to be excluded, since they were the most correlated to other variables. Mix 2, includes all the 30 DMUs and all variables excluding research grants. Table 2 presents the inputs and outputs used per Mix.

<i>Mix 1</i>	<i>Mix 2</i>
<i>N = 17 DMUs</i>	<i>N = 30 DMUs</i>
<i>Output 1: Graduates</i>	<i>Output 1: Graduates</i>
<i>Output 2: Publications</i>	<i>Output 2: Publications</i>
<i>Input 1: Academic staff</i>	<i>Input 1: Academic staff</i>
<i>Input 2: Students</i>	<i>Input 2: Non-academic staff</i>
<i>Input 3: Budget funds</i>	<i>Input 3: Students</i>
<i>Input 4: Research grants</i>	<i>Input 4: Budget funds</i>

Table 2: Mixes of inputs-outputs

The choice of the right model to use is the next step when applying DEA. The fundamental ones are the CCR, which assumes constant returns to scale, and the BCC (or VRS) which assumes variable returns to scale. According to some authors, the BCC model is suitable for the university sector because the returns to scale of universities activities are unlike to be constant (Koshal & Koshal, 1999). On the other side, according to other studies (Johnes & Johnes (1995), Celik & Ecer (2009)), the CCR model is considered to be the most appropriate.

In this study, we performed two tests so as to choose the most appropriate model. Firstly, we carried out the analysis under each model type and most of the efficiency scores proved to be similar. As a second test, we used the correlation analysis and the results showed that there is no high correlation between the efficiency scores and the size of the departments (we used as a proxy for this the number of the academic staff). These two results indicate that it is safe to assume constant returns to scale and thus the CCR model is proved to be the most appropriate for the present analysis. In other words, scale effects are not operating and large departments are just as efficient as small ones when they transform multiple inputs into multiple outputs.

The next issue to be decided is the orientation of the selected model. For the present study, we chose the input-oriented model, which focuses on reducing inputs without changing the level of the outputs. As all the inputs used are considered to be controllable, if necessary, by the university administrations this orientation better suits the problem and the planning needs.

ANALYSIS AND INTERPRETATION OF THE RESULTS

We calculated technical and pure efficiency of all the departments since we should select between the CCR and the BCC model. After having chosen the CCR model as the most appropriate, in the following paragraphs we present only the measurements of technical efficiency. Table A2 in the Appendix shows the efficiency scores of the assessed departments for all the three years and for the two mixes of inputs and outputs. Generally, it is obvious that the Greek engineering departments perform well as they present high mean scores. The average technical efficiency for the first year (mix 1) is 0.925 which means that 7.5% of the inefficiency is due to pure technical inefficiency.

The departments showing an efficiency measurement equal to 1 are those which construct the efficient frontier. Some of the departments demonstrated 100% efficiency during all the years. More specifically, if we consider Mix 1, NTUA_ARC, UP_CHE, DUTH_CE, DUTH_ECE are efficient during all the three years, while considering Mix 2, NTUA_ECE, UP_CHE, DUTH_CE, UTH_ME are continuously efficient. As one can observe, the Department of Civil Engineering of the Democritus University of Thrace and the Department of Chemical Engineering of the University of Patras are 100% efficient for both of the mixes.

An examination of the DEA results over time shows that 2004 could be characterized as the most "inefficient" year. The average overall efficiency declines from 92.5% in 2003 to 74.6% in 2004 for the first mix. Even for the second mix we can also observe such a decrease, while efficiency improved for both mixes in 2005. A deeper look at our data, reveals increase in research grants for 2004, which is not associated with output increase.

It is worth having a look at the departments which consist the reference set of each DMU. For each of the inefficient departments, DEA identifies a group of efficient units which diagrammatically are positioned more closely to the examined unit. As an example, we refer to the NTUA_NAME which is an inefficient department and its reference set consists of the UP_CHE, DUTH_CEI and the DUTH_CE. These three units are used as benchmarks for the improvement of the inefficient department and compose the ideal environment for this purpose. Following this path, we found it interesting to examine the frequency of the presence of the efficient units in the reference sets. We calculated how many times each of the 100% efficient departments are present in the reference sets of the inefficient ones. We found, for example considering the worst year, i.e. 2004, that the NTUA_CEI appears to be the most frequent benchmark for both mixes. Probably its composition of inputs and outputs and its performance is closer to the inefficient units and thus, it is considered to be a benchmark for them.

An application of Data Envelopment Analysis also involves the suggestion of potential improvements in the examined sample. DEA sets targets for the inefficient departments to work towards and suggests improvements that can be done to become efficient. It also provides measures for the contribution of the peer units at the configurations of the efficiency scores. In general, the higher the inefficiency is the biggest will be the changes suggested by DEA. However, it should be noted that sometimes the targets set are not realistic and achievable, e.g. it is not possible for a department to reduce its staff by 90%. Tables A3a and A3b present potential improvements according to 2005 data.

It is also worth mentioning that we found slacks in outputs when applying DEA. Having selected an input-oriented model, we expected DEA to suggest only decline of the inputs. However, the potential improvements included even rise of the outputs in some cases, along with the inputs decline. These are the so called slacks and show that those outputs are under-produced.

An indicative short analysis for one inefficient department follows: In 2005 and using Mix 1, when we consider the NTUA_NAME (Department of Naval Architecture and Marine Engineering of NTUA), we see that it demonstrates technical efficiency of 59,5% (see Table A2). The respective reference set is composed by three departments of the same university (NTUA_ARC, NTUA_CE, NTUA_ME) with NTUA_ME being the closest efficient department (and therefore contributing mostly to the definition of improvement potential for NTUA_NAME). When compared with its peers (the reference set) it seems that the number of Academic staff is relatively high (Table A3a). A slack appears in publications, indicating that the number of publication is quite low. Combined with the fact that an improvement of -40% is indicated for undergraduate students, this forms a clear indication for strengthening the research output of the department. Research grants seem to be less effective here, as well. The department expenses are high compared to reference departments. This analysis can be further extended in other departments.

DISCUSSION

In the current work we worked on the estimation of technical efficiency in higher education. We concentrated on Greek engineering departments. Efficiency was estimated through a non parametric method, namely the Data Envelopment Analysis (DEA). DEA can simultaneously handle multiple inputs and outputs with the only requirement to have information on inputs and outputs quantities. Thus, it is suitable for assessing the efficiency of educational institutions where it is impossible to assign prices to many of the outputs. Moreover, no assumptions for the functional form of technology are required, since it is a non-parametric method. An advantage against the statistical techniques is that DEA compares the inefficient DMUs with the 'best practices', not the central tendency. Additionally DEA provides with improvement plans for each non efficient department. However, DEA has some limitations which should be taken into account when applying it. DEA measures relative efficiency, but not absolute efficiency. In other words, each unit is compared to a subset of peers and not to a theoretical maximum performance (Colbert et al., 2000). Sometimes DMUs achieve 100% efficiency simply because no one else is competing in that niche (Johnes & Johnes, 1993). Additionally DEA does not perform statistical tests on the inputs and outputs applied. In general there is not an agreement on the researchers on the inputs and outputs to be employed. Quantitative variables are strongly preferred. Ideally, qualitative evaluation should also be included. However as it is usually produced out of questionnaires (Higgins (1989), subjectivity issues arise. Moreover ,such reliable indicators are not available for Greek higher education yet (early attempts for this started in 2008-2009). Finally, DEA performs static evaluations for each year. This can be misleading since dynamic settings may give rise to seemingly excessive use of resources which are intended to produce beneficial results in future periods. Incorporation of the time dimension through the application of specific techniques (Malmquist index, window analysis) is a future step for the authors.

CONCLUSIONS

Data Envelopment Analysis has been applied for the estimation of the technical efficiency of the engineering departments in Greece. DEA seems an appropriate method since it does not

require any knowledge of the production function nor the existence of prices. Additionally, it provides with improvement plans for each non efficient department. In this sense it can become a valuable tool for university management. In terms of results, analysis indicates high technical efficiency for many departments. Some departments seem to be continuously on the efficient frontier, i.e. 100% efficient. Scale effect does not seem to be present. Average efficiency seems to be falling in 2004 and rising in 2005. Specific improvements are proposed for the non efficient departments.

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APPENDIX

Abbreviation	University/Department
NTUA	National Technical University of Athens
NTUA_CE	Department of Civil Engineering
NTUA_ME	Department of Mechanical Engineering
NTUA_ECE	Department of Electrical and Computer Engineering
NTUA_ARC	Department of Architecture
NTUA_CHE	Department of Chemical Engineering
NTUA_RSE	Department of Rural and Surveying Engineering
NTUA_MEM	Department of Mining Engineering and Metallurgy
NTUA_NAME	Department of Naval Architecture and Marine Engineering
NTUA_AMPS	Department of Applied Mathematical and Physical Science
UP	University of Patras - School of Engineering
UP_ECE	Department of Electrical and Computer Engineering
UP_MEA	Department of Mechanical Engineering and Aeronautics
UP_CE	Department of Civil Engineering
UP_CHE	Department of Chemical Engineering
UP_CEI	Department of Computer Engineering and Informatics
DUTH	Democritus University of Thrace - School of Engineering
DUTH_CE	Department of Civil Engineering
DUTH_ECE	Department of Electrical and Computer Engineering
DUTH_ENE	Department of Environmental Engineering
UTH	University of Thessaly – School of Engineering
UTH_ME	Department of Mechanical Engineering
UTH_PRD	Department of Planning and Regional Development
UTH_CE	Department of Civil Engineering
AUTH	Aristotle University of Thessaloniki – School of Engineering
AUTH_CE	Department of Civil Engineering
AUTH_ARC	Department of Architecture
AUTH_ME	Department of Mechanical Engineering
AUTH_ECE	Department of Electrical and Computer Engineering
AUTH_RSE	Department of Rural and Surveying Engineering
AUTH_CHE	Department of Chemical Engineering
TUC	Technical University of Crete
TUC_PEMD	Production Engineering and Management Department
TUC_MRE	Mineral Resources Engineering Department
TUC_ECE	Electronic and Computer Engineering Department
TUC_ENE	Environmental Engineering Department

Table A1. List of university departments

	Mix 1			Mix 2		
DMU	Year			Year		
	2003	2004	2005	2003	2004	2005
NTUA_CE	0.911	0.520	1.000	0.934	0.520	1.000

NTUA_ME	1.000	0.456	1.000		1.000	0.456	1.000
NTUA_ECE	0.958	1.000	0.949		1.000	1.000	1.000
NTUA_ARC	1.000	1.000	1.000		1.000	0.452	1.000
NTUA_CHE	1.000	0.793	1.000		1.000	0.859	1.000
NTUA_RSE	1.000	0.675	0.860		0.770	0.538	0.823
NTUA_MEM	0.926	0.626	0.694		0.874	0.626	0.688
NTUA_NAME	0.777	0.243	0.595		0.706	0.243	0.586
NTUA_AMPS	0.806	0.354	0.633		0.153	0.264	0.630
UP_ECE	0.776	0.648	0.821		0.751	0.658	0.665
UP_MEA	0.706	0.371	0.436		0.529	0.378	0.543
UP_CE	1.000	1.000	0.923		0.946	0.414	0.822
UP_CHE	1.000	1.000	1.000		1.000	1.000	1.000
UP_CEI	1.000	1.000	0.899		1.000	0.600	1.000
DUTH_CE	1.000	1.000	1.000		1.000	1.000	1.000
DUTH_ECE	1.000	1.000	1.000		1.000	1.000	0.932
DUTH_ENE	0.864	1.000	1.000		0.667	1.000	0.966
UTH_ME	-	-	-		1.000	1.000	1.000
UTH_PRD	-	-	-		1.000	0.976	1.000
UTH_CE	-	-	-		0.889	0.583	1.000
AUTH_CE	-	-	-		0.680	0.417	0.713
AUTH_ARC	-	-	-		0.831	0.544	0.996
AUTH_ME	-	-	-		0.677	0.641	0.982
AUTH_ECE	-	-	-		0.814	0.711	1.000
AUTH_RSE	-	-	-		1.000	0.431	1.000
AUTH_CHE	-	-	-		0.559	0.950	1.000
TUC_PEMD	-	-	-		0.379	0.499	0.685
TUC_MRE	-	-	-		0.490	0.239	0.630
TUC_ECE	-	-	-		0.566	0.377	0.573
TUC_ENE	-	-	-		0.893	0.800	0.731
Mean	0.925	0.746	0.871		0.804	0.639	0.866

Table A2: Efficiency scores (Technical efficiency)

Potential improvements

Variable	Academic staff	Expenses	Graduate students	Publications	Research grants	Undergraduate students
DMU						
NTUA_ECE	-5.09%	-25.95%	0.00%	0.00%	-5.09%	-42.58%
NTUA_RSE	-72.22%	-40.59%	0.00%	98.48%	-14.00%	-14.00%
NTUA_MEM	-43.42%	-52.51%	0.00%	0.00%	-40.32%	-30.57%

NTUA_NAME	-40.48%	-59.20%	0.00%	36.17%	-40.48%	-40.48%
NTUA_AMPS	-57.52%	-49.71%	0.00%	0.00%	-36.73%	-36.73%
UP_ECE	-17.87%	-44.83%	0.00%	0.00%	-17.87%	-48.92%
UP_MEA	-56.42%	-58.42%	0.00%	0.00%	-56.42%	-56.42%
UP_CE	-7.73%	-36.15%	0.00%	0.00%	-7.73%	-33.26%
UP_CEI	-10.08%	-10.08%	0.00%	0.00%	-51.66%	-28.76%

Table A3a. Potential improvements (Year: 2005, Mix 1)

Variable	Academic staff	Non-academic staff	Expenses	Graduate students	Publications	Undergraduate students
DMU						
NTUA_RSE	-73.74%	-48.48%	-41.73%	0.00%	329.73%	-17.68%
NTUA_MEM	-31.15%	-53.49%	-58.88%	0.00%	0.00%	-31.15%
NTUA_NAME	-41.39%	-42.63%	-59.58%	0.00%	52.79%	-41.39%
NTUA_AMPS	-57.70%	-37.03%	-49.92%	0.00%	0.00%	-37.03%
UP_ECE	-33.46%	-33.46%	-33.46%	0.00%	0.00%	-52.97%
UP_MEA	-49.73%	-45.75%	-55.09%	0.00%	0.00%	-45.75%
UP_CE	-17.79%	-17.79%	-17.79%	0.00%	0.00%	-17.79%
DUTH_ECE	-6.83%	-15.36%	-6.83%	0.00%	0.00%	-33.07%
DUTH_ENE	-63.61%	-3.37%	-3.37%	0.00%	0.00%	-48.40%
AUTH_CE	-35.06%	-28.67%	-80.10%	0.00%	0.00%	-28.67%
AUTH_ARC	-34.55%	-0.41%	-73.70%	0.00%	401.66%	-0.41%
AUTH_ME	-1.83%	-25.24%	-87.02%	0.00%	0.00%	-1.83%
TUC_PEMD	-61.95%	-31.55%	-65.56%	0.00%	0.00%	-31.55%
TUC_MRE	-36.96%	-63.28%	-89.23%	0.00%	0.00%	-36.96%
TUC_ECE	-65.59%	-42.74%	-87.10%	0.00%	0.00%	-42.74%
TUC_ENE	-71.92%	-26.87%	-76.68%	0.00%	0.00%	-26.87%

Table A3b. Potential improvements (Year: 2005, Mix 2)

A MODEL OF LOCAL DEVELOPMENT: THE CASERTA FACTOR

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INTRODUCTION

The object of the dissertation herewith is to draw attention to a possible course/guide for local development in the district of Caserta. The matrix idea is of a problematic nature. What are the crux, the problems, the criticality inhibiting the attraction/procurement of capital for future investments in some areas of the country? The main thesis is that the social-economic context in which the already existent companies operate and the one pertaining to potential future companies constitutes the main lever in explaining territorial competitiveness. What is territorial competitiveness today? The question is subjected to an analysis of the present environment.

Globalisation, market integrations, opening of national/home economies, increases the mobility of enterprises and investments. Why do companies prefer, so much so as to favour, a specific territory as opposed to another? Can a territory become object of an enterprises' choice of investment and have a value and importance equal to or above the other production factors that constituted and in some way still constitute the elements on which its production function may be based? For an enterprise/company wishing to invest and operate nowadays in a given sector or activity the question to be asked is "which territory?"

Two conflicting ideas but nevertheless coexistent can be traced in the territory in question and they refer to economy globalisation; the idea that economic activities are incoherent with the territory, from "one" place of reference and thus essentially mobile both with respect to productive process and market outlets/openings and the idea that enterprises/companies are more dependent on the territorial context¹. This second perspective does not represent a backward step, a congenital involution of the existent globalisation process, nor does it generate any localising closure. This is the idea of local development. To speak about local development is to discuss a new relationship between economy and territory. If one takes a look at the transformation that has invested the production organisation in its historical-temporal context, the Ford approach, the enterprise/concern becomes autonomous from the environmental context and from its influence. In this perspective, territory is a passive element and development is decided upon and organised by the policies of the central State. On the contrary the anti-Ford production model links enterprises to the territorial context which they are established in; the Logics under the new model and the existence of possibilities and favourable operative conditions, already existent in a context or promoted by particular policies, become the fundamental motivations that establish interest in locating its activity in one place, in preference to another. The influence of the environment on company decisions, is evident in the post Ford production model and has been enhanced by globalisation - and the same may be said for the possibility of territorial choice. In such a picture territory may constitute interest and future investment choices for the enterprises/companies/concerns. The choice of location, spatial organisation to operate in, now holds a key role as a factor of competitiveness.

The role of institutions in the construction of this course/guide is fundamental/decisive. Globalisation increases competition between territories and pushes local governments and regions to expedite development processes, in order to enhance the territorial context as a

competitive resource. To attract external business a territory can use internal resources – for example fiscal, financial resources, benefits, provision of services, cost factors. To do so, it may adopt territorial marketing structures, specialised agencies to contract and attract interest in eventual external investments. This tool in its function and outcome will probably bring out evident criticality that influences the actual return. They could therefore use different tools that, although absolving the same function of drawing in/procuring external resources, consider the attraction/procurement of external investments not just a scope in itself, to be considered satisfied once the operation has been concluded, but, within a logic of local development, a means for yet another scope i.e. evaluating internal/home supply. These resources are not only material or economical, also immaterial resources or extra economy resources constitute development factors, and in this sense social capital is determining, as a network of personal social relations amongst individual, joint, public or private subjects/participants. But then a continually “relational” economy is conditioned by market factors and is based, above all, on the capacity of subjects to interject amongst themselves and co-operate.

Within this relational logic, the fate of these courses/guides is entrusted to the roles of enterprises and the local government. Once again, the transformation of the productive organisation model contributes to explain the reasons thereof. In the passage from a Ford-like order/disposition to a post-Ford disposition the productive organisation model took on flexibility and quality as terms of company research as decisive factors in their “objective function”. Flexibility, as adaptation to a voluble and variable market and product quality require a formal and informal collaboration amongst the formally autonomous public and private subjects.. A well structured contract between enterprise and local government does not suffice to assure that the development process functions and proceeds. Even technical assistance may prove insufficient. Delegating the formulation and the realisation of efficient development projects to technical structures does not always guarantee good results. The availability, firstly, of orientation and coordination mechanisms and, then, control on the part of the local government of the development process and the availability of the company’s full efficacy to act on that process is necessary. The agreed logic thus outlined refers to the capacity of local institutional subjects to implement efficient cooperation processes aimed at obtaining a territorial quality context that results attractive for the private investor. The leading role of the local government becomes a new form of territorial regulation of the economy and the society, in a kind of governance that improves the territory through a development strategy of same. To manage this change, the local ability to plan avails itself of efficient and known competition amongst territories.

COMPETITIVENESS AS A SUCCESS FACTOR FOR ENTERPRISES WITHIN A GLOBAL MARKET

The existing phenomena of globalisation increases national/home and international growth. Indissolubly this is connected to the process of internationalisation of the production sector and markets. The dynamics of such a process are the reason why enterprises/concerns decide to leave their habitual dimension and throw themselves into a different, presumably or allegedly better, global market reality. This change towards different places of interest, considered both with respect to the productive process, and with respect to market opportunities, refers to an image of the mobile economy in the area, disconnected from individual single places. With this in mind, territory is an implicit element of what may appear to be a kind of indifference versus the territory seems to be an effect of globalisation. The de-territorialisation effect annuls the geographical distance, normally an obstacle to business². This prospective is certainly not denied if innovation and quality research induce enterprise to look at the territory and local context as an important reference, as a favourable environment. This means that the

competitiveness that takes place between the economic operators 'accompanies a new local rooting of economic activities'³. It is the bond with a determined territory and with its social and institutional context to make a name for itself and hence local development. In this way two different tendencies can be profiled, or rather opposing tendencies that have their reference centre within a territory.

The enterprises'/concerns' approach, especially in the production stage, considers the external territory as a base for further development; whilst, in the project and organisation phases of the production process, the local territory is the one to boast attention. As will be stated, this dual consideration is not only within business logic; it invests more complex dynamics. In particular, after thorough consideration the effect might also apparently seem paradoxical/bizarre with respect to the globalisation phenomena; at further analysis the effects considered on the whole could seem compatible if global dimension and local dimension of development do not remain exclusive courses and reciprocally excludable, but, rather, combinable.

The globalisation process is evidently accompanied by renewed processes to the regionalisation of economic organisation. A vision and entrepreneurial/business approach destined to introduce new goods onto the market, new productive methods, new economic organisation models, and to discover/pinpoint openings to new markets, demand identification of which conditions in a determined territorial context can produce investment opportunity. It is not so much, or necessarily, seeking defined conditions in a physical space, but rather a context of specific chosen conditions in a specific situation, of interest to numerous participants/subjects. In the interpretation conducted around the industrial district phenomena, the general conditions that resulted regarded the Ford Industry crisis, and also the opening of international markets, conditions which, together with others, have brought about a totally new consideration of space, or rather, territory. Observing the local context one has come to locate a local territorial structure of opportunity, favourable for business, covering resources to be used with unexplored modalities and in unexplored directions. What is the consequent result? The result is that there is a renewed return of the territory, to be considered resource, added value/net output, that an enterprise cannot neglect. This change in prospective is content enriched.

The identification of a local development course/guide, the analysis of development modalities for territorial entities, brings us to reflect on the social capital that has its most significant feature in the given territory. The contents of the social capital are expressed in what a person possesses and may exploit. It is a resource deposited within the relation structure the person is part of, deriving from potentiality that the self-same relationships are able to convey, it is a component of social organisation. The relational data that thus emerges allows us to identify two types of network and related social capital " it is social capital that reinforces the bonding barriers – and a capital that allows bridging. When looking at social capital we again find that dual observation, within and without, that explains its effects when discussing/viewing local development. Locally speaking, we may find particular territorial features, environmental, physical and natural and particular findings deriving from inter-relations with features of a territorial, social, economic and political nature. A consideration of social capital cannot be left out of connections between social relations and territorial resources, nor even from its own features, of whatever context. It is not only and simply a correctly premised specification, but it is above all a consideration of methodology. The differentiation between economy and society operated by the Ford organisation methods has depreciated the importance of enterprising, as a local institutional context, marginalising the role of social capital in local economic development; regarding an autonomous environment-based company,

the non-economic factors able to weigh upon O&M capacity (Logistics) and the central Keynes policies have an approach from the demand side and the policies relating to external investment attraction/procurement, using suitable incentives. The Ford structure crisis re-launches social capital. Production flexibility and capacity to adapt towards the market and its conditions, product quality, become new keywords. This ideal, and at the same time operative, change concerns the small and intermediate highly skilled/specialised companies, like the large companies who, availing themselves of the collaboration of small and average-sized external firms, in order to reduce time frames and costs for innovation and production processes, delocalise certain product lines at decentred specialised and autonomous production units. The importance of social capital can be seen in local development processes: autonomy of structures within the enterprises/companies, opening up to external collaboration thus increasing relational data resulting from networks of companies in production and innovation processes, and from rooted social relation networks within a territory.

Relationships amongst subjects, which are potentially productive of economic, social and political opportunities and stimuli, have as a fundamental reference, ties with physical, environmental and natural resources of the local context. Only if we assume that territorial resources may weigh upon the economic activities of an area, and thus influence them, and that the local development policies may benefit from this, can one affirm with greater effectiveness, that social capital potentiality within territorial dimension relationships, can but result strengthened and exploited. In this sense, economic, political and social dimensions are not the only ones to be reductively included in the social capital; territorial dimension is the determining component of a local development course. One should stress how social capital cannot escape the territorial features to which it belongs, similarly, as territorial social capital is "the place of inter-relations between territorial resources and social cultural resources, functional to their reciprocal exploitation, to identity growth and to local development". In this particular sense, social territorial capital, deriving from a reciprocal interactive process of its own components and territorial peculiarities, expresses potentiality that may be exploited by local subjects so as to promote local development.

Notwithstanding the fact that growth/expansion courses/guides of local development are not simultaneous to its activation, the risk at this point that might occur, with respect to the possible consequence of social capital on an economic scale, is to consider social capital availability as the sufficient condition, even automatic, for it to become a resource for local development. The outcome of an interactive co-operation process, of personal resources and territorial resources, as an expression of potentiality of a determined territory, territorial social capital must be subjected to recognition in order to play an important role in promotion policies for local development, in order to be a development resource – discovered by local subjects, without which those potentialities, although existent, would be hidden, latent. Therefore, if identification can contribute to eliminating the evident risk, translating the transformation of social capital into development resource, may a supply of identified/acknowledged low social capital be an obstacle for its functioning in terms of local development? This question is the result of a consequential logic concerning identification/recognition. Thus, the extent of initial supply of the social capital is not so much in question. Supply, potentiality, are whatever the case existent, and provided they are recognised, may more often than not be urged from the outside, for example through the possibility to access tools, financial loans by means of joint ventures on the part of institutional participants and businesses and, attaching territorial resources in a determined area, they may generate local development if translated into concrete and feasible ventures, into interventions, projects with which interaction between resources determines something more than a simple territorial valorisation/exploitation. Nonetheless, not

bearing in mind the local and territorial specifics expressing the identity content of a determined area, might undermine development and renewal policy significance. In any case, to pursue development means to develop the capacity to seize occasions, possibilities, external stimuli. In this respect, social capital may become a point of reference for the outside but also an evaluation parameter for the territory and may also contribute to the popularity index rating and, therefore, to the construction of its identity. Such phenomena, in their complexity, clearly show the notion whereby if we obtain origin from processes of change imposed by economic evolution, this creates an open and propositional territory with respect to the external contribution. The attachment between local resources and external networks generates knowledge/know-how, ideas and people circulate, know-how within in the territory develops, new possibilities and opportunities arise which, together with market evolution and tendencies, nurtures local development and increases territorial added value/net output. On the other hand, this opening, this receptiveness must be interwoven with local territorial resources and allow regeneration thus avoiding the loss of identity rooting of territorial social capital. Social capital thus enhances/exploits territorial dimension development. Globalisation and research of advantageous conditions beyond the localised networks in a determined area, might even alter/corrupt the convenience within a given territory. Therefore the data one should pay attention to is not so much de-territorialisation of the productive process, but rather competition between territories, in which social capital emerges as a resource, as a localisation catalyst for external investments, as an tool with which the possibilities of local subjects increase and weigh upon territory development.

For this to become an tool for local development, interventions are necessary, social capital promotion policies favourable for development. The experience of negotiated programming, involving public and private parties, represents progress with respect to the idea of an intervention to support development connected to individual incentives to attract/procure external companies/business, or to the idea of operations that, by acting on costs, might respond to low production levels. The activation of social capital passes through the exploitation of territorial implementation policies on the part of local, business and institutional subjects. In the new economic framework, in a market that tends to globalise and faced with news forms of economic and productive organisation, social capital interacts with human capital, know-how/familiarity, physical capital, infrastructures, financial capital. Local development calls for learning capacities, specialised know-how development that increase productivity, social relations between local subjects. " From this point of view, they become relevant sustainment participations, both on a financial and organisation level, in integrated local development projects that stimulate the formation of co-operative networks both between individual subjects and collective participants, and that attach external companies more closely to this objective/target. Nonetheless, " central institutions are not to infer upon the contents of local development projects, are not to limit their autonomy, are only to help local participants to define projects and then demonstrate capacity and transparency in choosing the better ones to generate competition within territories and push them to draw up projects more prone to the features of social capital and that bring about a knowledgeable use of local resources in development". Hence an invasive institutional approach that does not preserve enough autonomous margins for the local participants, and risks to generate dependency, localism, levelling on the requirements expressed by the territory, harmful to territorial social capital and, therefore, development. The realisation of development conditions, exploitations of local social capital characteristics occur, on the other hand, strengthening autonomous capacities of the area involved, local resources being the differentiation factor of the offer of each area. These tasks are referred to development policies and their role in territorial dynamics. Faced with a territory with few territorial resources, or where recognition/acknowledgement of the resources and

potentiality has not been carried out within or that has not projected re-launching strategies, in similar occasions, task of local development politics is to reconnect territorial, physical, environmental and social components and stimulate local identity factors. It is not about dealing with these components separately, the intervention aims at favouring complementary inter-relations, all functional to their reciprocal enhancement/exploitation. The promotion of local development qualifies as a means to rediscover the territory, but differently. In development, promotional approach refers to local context of a determined area, without forgetting the local reality, nor altering the relationships between territory and participants. Tools to be used to face critical times of a territory should involve local subjects within a shared project. The features of the territorial social capital of an area are the co-ordinations of the development policies of the projects. The problem of economic development is not therefore just a simple and reductive matter of cost but has a social dimension that emerges from the social capital. In mobile and globalised economy conditions, social capital expresses the systemic tie between economy and social organisation. The local systems look even more like social organisation resources for economic development. Two ideas contribute: "territorial politics do not concern only and so much so redistribution of resources and the amount of given data enrichment, but may be addressed to free the potential of local initiatives, the enhancement of economic and cultural resources of local societies, often latent and unrecognised, establishing institutional orders able to favour decisions and decentred aggregations. The second idea concerns the fact that local development is triggered off with strategies of more participants/subjects, public and private, able to develop coordinated projects" In other words, not a return to already experimented economic forms of policy but "the start of new forms of process governance in which public and private participants, entities and associations, enterprises, universities, research centres all compete; the game consists in convincing different participants to take part in converging investments. – that remain independent and that may also orientate their relations elsewhere, or go elsewhere- so that the varied development conditions are guaranteed, and arrive at the appointment at the same time ". The local development paradigm needs to be equipped with approach address methods in function of social interaction development.

The territorial approach of development policies is re-determined according to the new conditions connected to market evolution. It does not correspond to a merely endogenous concept of development ; contacts with the outside/exterior are essential to define territorial development strategies. Nor does it accompany a welfare type of development concept, implemented by means of support policies. The local territorial approach is based on the definition of a territory seen as a project on which re-launching steps can be effected, on a dynamic extent, economic, social, environmental, institutional and cultural . The significant conceptual change over the territory no longer regarded it as space, interpreted as simple geographical environment, but for its social consideration. In this perspective, the territory characterises the concerns' actions, existing for them a localized preference and a market differentiation on the part of the other participants because of their geographical position. Territory is the place that the enterprises/concerns choose depending on the possibility of active establishment/settlement there. Thence his competitive position with respect to others derives. Choosing "where" to establish productive activity is part of the requirement of the production system. The relational data that emerged from interpretation of territory, as a host for relations of the subjects/parties therein, grants an importance to the territory in the measure in which this influences the nature of relations. The advantage of a localising choice derives from the differentiation of the relations that the enterprise establishes with the other participants/subjects and with the environment in which he operates. The territorial dimension of his choice has the fundamental function of determining the competitive advantage for the enterprise/concern.

This territorial approach, integrating an prominent economic space/area, economic operators, market and support policies, suggests a territorial development strategy.

A POSSIBLE STRATEGY: THE CASERTA FACTOR

When giving a response to the query on how to define a territorial development strategy does not claim to explain in a strategy approach a kind of general theory on development nor does it claim that the territorial policies expressed in it are the sole privileged tool of economic policy. It does however stress the potentialities of a local economy for the development of the area – the province of Caserta – in line with the competitive capacity/skill of the territories. These local economy potentialities may be enhanced/exploited with specific interventions.

Studying the characteristics of territorial social capital and analysing what occurs in other territories it is possible to delineate a developing course of a determined territory. This course leads to the formulation of hypothesis on which ones may have the chance of success in the initiative, which economic sectors may be developed, what reactions there may be, how the social-cultural characteristics can interact with territorial resources. The external reference is again important for a non self-sufficient local system, nor self-referential, within a more ample system and within a global vision of economy, but on which re-launching strategies may be built. The operative choice to avail oneself of national and international local development models has not been dictated by the conviction that, to implement development policies, one must passively follow predefined courses, but if anything, from the need to learn from the experience of some models in order to try and draw one's own. As concerns the case under discussion, it would be pointless to try and find the same social, economic, political and cultural conditions as in other places. The histories of local development differ. There is no model to be followed or to be repeated. Local development is not exported, nor inherited, reproducing in territorial contexts different models from elsewhere, but it is constructed taking advantage of the unexpressed potential, intrinsic, of the territory and on its capacity to attract resources from outside/beyond.

The phenomena to be investigated is activation of development in the particular area of the province of Caserta. Pinpointing the general structural characteristics that define and condition the situation in which the subjects live, one may observe how they define the situation in which they operate and interact. The elaboration of a strategy aimed at explaining the initial phenomena: how the province of Caserta can be the laboratory of a territorial marketing strategy. The prospect taken on is of a business nature, founded on the approach of the enterprises/concerns

The proposition of a territorial marketing operation that is able to consolidate the existing activities/concerns, enhancing the present resources but also responding to the requirements of potential investors and attracting outside companies/enterprises entails as a precondition the definition of the area product, of the "offer", i.e. the territory product. The territory, observed from the point of view of productive establishment, represents a varied and significant offer, the offer of localisation product to be assessed for future investment choices on the part of the business concerns. For a territory which wishes to be qualified as a factor of competitiveness, it need no longer be a point of arrival for entrepreneurial action, a reflection on the localised choice made in an introspective manner, in a self-referential manner, within the company and dictated by purely economic reasons which keep the territory far away, considered as the obvious outcome of a reasoning extraneous to its contribution. The territory is the starting point from which one must direct subsequent development. From a quantitative point of view , the

enterprise/concern may count on a significant offer of territory, more or less of interest as concerns investments, i.e. the predisposition of truly appetising conditions.

The presupposed dynamics for globalisation economy processes of and the transmission and speed of innovation and know-how speed such as to evidently have an effect on factors such as capital, technology, know-how, professionalism, once considered priorities or even exclusive in the determination of the degree of competitiveness of an area, of the success of the industrialisation processes of a territory. The availability of the concern to delocalise the production of goods/assets or services or part of a productive process is rendered evident as a market condition.: the attempt to lower production costs in contexts with favourable external economies and qualifying resources constitutes the element for a dynamic competition between territories. This dynamism, this territorial attention is realised in terms of supply, trusting in its visibilities in the eyes of potential investors. Competition regards establishing factors and conditions which in turn concern not only material elements

but also immaterial ones, extra-economic ones. The difference in territories is qualified in terms of area product supply, an alternative to be evaluated when the concern makes choices of investment.. The development of area products, and also the definition of a local development course depend on the individuation of coherent financial activity typologies with the features and criticality of the area and the creation within this area of appetising and attractive conditions for the relative investors. Territorial marketing initiatives also play a role in this picture. The local development course that we herewith try to outline is founded on a strategy promoted with tools typical of company management activities. Territorial marketing strategy centred on the company approach registers a territory that is no longer passive, within which investment opportunities may be sought for final choices, but active, within which the persons responsible for territory development stimulate the demand of the investing enterprise/concern, or better still proactive, as the territory itself is , with its interest potential, an investment opportunity. To organise the supply, the territorial characteristics are to be analysed, from an environmental, population, economic, infrastructural point of view and to pinpoint the weak and strong points of the area concerned, so as to be able to define any operations that may improve the interest of the territory and consolidate existing activities. The territory supply, as a economic and social context in which the enterprise/concern can be inserted and can operate, is the result of collective approach of local subjects operating therein, that permits distinctive characteristics of the area to be seen on the outside and that contribute to the investment interest.

The definition of a territorial marketing strategy that aims at interesting new productive investments for the area, on the part of national and international companies, is to depend on prior know-how of competitive factors of the territorial context under reference. For this, an indispensable prerequisite is the analysis of the territory in its physical, morphological, population, social and economic structure. The object of the precautionary analysis is to bring the strong and weak points of the area into evidence. Thus, it is also interesting to learn what the outside opinion is of the territory under question, how it is viewed from the outside. Hence, our country - Italy, from a point of

view of investment interest, still suffers from high fiscal pressure, from a heavy going public administration, a credit system barely adequate and hardened versus offering credit to enterprises/concerns, from a weak labour market. In particular, investment interest and productivity are scarce, dynamics are scarce: although there has been a growth in this sense, it is still barely strong enough, inferior to other European countries. The difference in productivity of the Italian concerns with respect to European enterprises may be explained in the different dimensional structure, in specialisation, in external conditions connected to diffusion and to infrastructural quality and the working order of the public administration. The transfer channel of technology and organisation models, represented by direct foreign investments – DFI – has grown but the productivity of the country has benefited to a lesser extent than those of the remaining European countries; the portion of foreign direct incoming investments, index of the interest capacity of a country, tends to diminish. On a regional scale, development policies have partially missed their targets; the actual cost has at times been lower than the estimated one; the subsidies to enterprises have often been inefficient or bias; above all, little has been done to change those aspects of social-economic and institutional context that best stand out for development, such as legality, instruction, the actual concept of public service.” The difficulties in business activities in Italy, with respect to other countries, are worse in the south (Mezzogiorno). In that productive system environment , the difficulty of handcraft workmanship production and especially industrial production emerges, difficulty in sustaining lowest labour cost competition, in shifting to advanced or innovative market segments. The

effects of the crisis in course are only others to be added to the chronic economy financing: delays in payments on the part of clients and public administration, difficulties in recovering credits, and difficulty in accessing credit and cost of finances/loans reflect structural factors, of context, that regard/concern also high risk state of companies/enterprises. Similar conditions reflect negatively on company profitability and, in particular, complicate the expansion strategies of the sound ones. The analysis referred to the provincial level feels the competition disadvantages that concern national and regional territory.

Finding Demand. Potential Investors.

The development process for the province of Caserta in its outcome and duration, is undermined by structural limitations prevailing ; the productive system is fragmented, exposed to international competition. The de-industrialisation process concerns enterprises operating in innovative and relevant sectors for the territorial economy, such as electronics, telecommunications, machinery and chemical sectors. The difficulties encountered by exposing production costs to competition also felt by small and medium-sized of textile districts and shoe factories and divisions.

The critical points of Caserta production reality do not only concern international competition but also the production model, linked to a family approach which barely renews itself. Although there are positive effects for the economy of Caserta deriving from international demand growth/expansion, registering an increase in exports for 2006-2008 and since, therefore, there is interest in the territory on the part of international markets, some of the difficulties in expanding internationally lie in the company structures which are mainly individual. Nevertheless, the strategic position of the province of Caserta, a strong link between north and south of the country, its good infrastructural supply - to be strengthened, considering the strategic and priority character of works such as Marcianise airport, the Interport of Maddaloni-Marcianise and the Matese tunnel, and their positive impact on the territory and on the local business system in terms of added value/net output and of logistic cost reduction – offer the province of Caserta the chance to relaunch vocation and prospective development for the entire territory, even over the region of Campania.

Investment availability of the enterprises in the province of Caserta and the more general aim to increase the interest possibilities of the territory also require positive signs for future production of the companies. In identifying target reference, i.e. the enterprises/businesses that are potentially interested in investing in the area, said signs consist in preferring investments that are compatible with socio-economical vocations, cultural and environmental vocations of the actual area. Re-launching economy strategy not only concerns high-tech companies, but also mature-sectored companies such as textiles (the silk from San Leucio) and shoe factories, whose offer, in terms of known patrimonial and productive tradition, constitutes the prerequisites for remarkable development potential and for products of high level. The province also registers a strong weight in agriculture and foodstuffs of high quality. In this sense steps may be taken to strengthen the local produce spinneret, in particular typical territorial products such as mozzarella DOP made with buffalo cow, Annurc apples, Roccamonfina chestnuts. The Caserta productive system also has a high service supply sector. Commercial activities represent an important portion of the economic system; tourism, although high provincially, does not boast an index in line with artistic and environmental resources of the territory. Tourism represents a potential underutilisation one should aim at re-launching, with its heavy economical and occupational relapses. Environmental resources and countryside resources (areas destined as national parks and coastal areas), artistic, historical and cultural patrimony (the Reggia of

Caserta, the historical centre of Sessa Aurunca, Capua amphitheatre, the medieval castle of Letino) can also be other points of touristic interest within a development course in such a sense.

The meeting point of demand and supply in the territory. Strategy and promotional and communication policies of the area product. The participants involved.

The definition and implementation of a territorial marketing strategy involve the application of marketing logics and techniques in the territory. Users of the territorial marketing tools and programmes are, in their capacity of investing participants, both companies already present and operative in the territory, and also those potentially active as they are interested in setting up business there. For both kinds, territory is an area product.

Actions to be taken concerning the existing consumers in the territory aim at maintaining and rooting territory in the existing economic web in order to counter abandonment and to draw/procure additional expansion investments and, at the same time renewing favourable considerations manifested at the time of establishment as regards localised opportunity of the territory under consideration, hence avoiding that the operating company may find more convenience disinvesting out of the area chosen, in favour of others, and mostly helping modification projects that express better use of the territory for the localisation of companies in the area. That is, the companies already operating there in the area are able to influence convenience factors and the capacity to draw/procure subjects and their presence strengthens development opportunities of the self-same area.

From the economic dynamics specification and from analysis of the dimensions and characteristics of the productive structure of Caserta one may observe that forms of production aggregation/integration should be looked over so that provincial companies may offer their skills on an international prospective and that there is a better organisational and productive outcome. Interventions would lead the product towards market segments where competition regards product quality, where new relational models between production agents may be promoted and adopted, through co-operation that allow sharing of the cycle phases of production. The competitive advantages for the company result evident in terms of better negotiation with distributors and suppliers, a decrease in purchase costs for services and procurement/supplies, an increase in commercial and promotional impact on the reference markets, realisation of trade marks and product improvement, strengthening of external credibility, with participants to the internationalisation process, exchange of connections/know-how and information, an increase in managerial skills within the single companies. In the light of the specificity of the Caserta economy, local agricultural and food produce, textile goods and tourism, maintaining the local level of added value/net output from the transformation and the commercialisation of products, represent strong points in the Caserta territorial scenario. The productive vocation is linked to historical traditions, to environmental and climatic conditions, to local productive tradition and to its entrepreneurial/business dynamism, to cultural tourism traditions of some towns. The integrated development model, which we outline, is of a territorial marketing project type that weds production enhancement ad cultural asset enhancement/exploitation. The promotion of this model takes its approach from ambitious attempts to separate, without dividing, institutional participants from entrepreneurial ones, to determine a table and a climate of permanent consultation around development policies. What are the effects? The model may represent both large companies that show strong signs of productive and commercial vitality and the small ones, weaker from a market point of view, but nonetheless equally competitive with regard to the quality of its products, an tool of growth/expansion and a distinctive sign of territorial quality, recognisable also on an international level. The combination of territorial characteristics and competitive conditions in

production sectors is such as to obtain self-propulsion territorial growth. Should a determined productive sector have specialised characteristics and a certain degree of integration between the production phase and the supported territorial area, thanks to the degree of the local participant's involvement and the level of the services offered, the productive activity, one may retain that the integrated development model may commence. The production vocation of the area is necessary to guarantee a positive outcome of the territories' development policies; the extent of competition of the sectors is influenced by the company's choice of strategy, with differentiable products, and it is as higher as the more local companies are orientated versus the external market; at his point innovation urges for organisational change ad territorial integration becomes important to differentiate the products and to exploit their peculiarity also beyond the local market. The development model brings into evidence the role of economic agents that, for their role or their service, are able to have an effect on development processes and on local production offer. Its achievement is also thanks to the high degree of the local operators involvement, public and private, from which the propulsive effect of economic growth/expansion depends; the entrepreneurial, social and institutional context weigh positively upon the competitive advantage from production localisation. The governance model is articulated on more levels. The integration level amongst the companies is realised in terms of operative management according to market logic. Common interests aim at realising agglomeration outside of the company, but within the local area of reference, in terms of production costs, flexibility, creation and development of new companies to respect product quality regulations, the realisation of common policies for procurement and for product commercialisation, improvement of their quality through research and technology innovation policies, extension of sales expected and also to face global market competition and obstacles to important distribution channel access. The relational component does not only concern the local productive system but also involves the institutional system. At integration level between companies and local institutions, the role of intermediate public and private subjects – category associations, syndicates, Chambers of Commerce, local bodies, financing banks, research bodies, the academic world – is to address and support company policies, thus the interests of a private nature followed by the companies, towards common targets of professional, economic and productive growth/expansion of the territory and technological innovation through the assessment of a table of comparison with governance tasks and coordination of development policies. The third level contemplates integration of all the components involved in the central programme operation, reference bodies for the economic, institutional and technical co-ordination, beyond the area of reference, with guidelines and controls of the intermediate subjects, of relations between companies and local bodies/entities and the implementation of regional development policies, to overcome particular strategies. And the effects on economy and production? As a result of sharing objectives/targets for territorial expansion/growth, governance modalities, the network of co-operation, produce a multiple effect on the territory, having a positive influence on the quality of productive localisation/establishment, increasing territorial interest in the eyes of new companies, both from a productive and touristic point of view. Equally positive are the effects of development expansion in the territory where, in virtue of interaction and diffusion processes of connections among companies, and support action and service action to the companies on the part of the local institutional system and central and regional intervention policies, may benefit in the lengthy period of a social capital that, to be specific, makes the local products unique and of quality. As concerns the local business system, the advantages involve the development of local competitive factors, better use of production factors, strengthening of local specialisation of productive supply and the conquering of new quotas on the market, of specialised segments of demand, synergic strengthening of business, relation inter-productive intensification with suppliers and industries involved, the founding of

new companies/businesses. The development potentialities of the model are such that the acknowledgment of the strategic importance of organizational and relational changes deriving therefrom, may contribute to the development of the local productive system and its competitiveness.

Product promotion comes from territorial marketing strategy that calls for participants and practices/performance. Managerial skills of local public and private subjects who have previously, in their development processes, qualified their approach in locating the necessary tools for the growth of the local economic system and in organizing resources destined to stimulate the interest of potential investors. Such an action has characterised itself in preparing a passive or "wait and see" type strategy that left the investing concern the task of finding establishment opportunities, choosing the location sites on the basis of convenience variables and factors, and thus make a decision from the chosen alternatives. Territorial marketing implies, on the other hand, an active performance substantially different. The subjects/persons responsible for local development are involved in planning and the implementation of predisposition if an area product/output and this entails recognising the actual requirements of the productive investment, removal of any obstacles to development, communications to the market advising of the established offer so as to urge/stimulate a demand of the investing companies. Visibility is about the territory as a competitive advantage distinguishable from others. As a matter of fact, the choice of locations is among the objective factors that, together with the subjective factors, determine, as a whole, the competitive advantage of the company on the market in question. The area product/output, since made up of physical elements, economy operations, institutions, gives rise to management problems. This complexity comes from the fact that only part of these elements is at the disposal of territorial marketing approach, in the sense of being planned, modified and controlled. With a view to investment realisation, the parties responsible for territorial management are given the task of defining some industrial policy choices that specifically concern a synergic vision of economic benefits from potential investors; the development of product dies/spinnerets in particularly important sectors on a territorial level and through these, the diffusion of the productive process innovations; the establishment and diffusion of highly skilled technology and research centres that facilitate collaboration in universities, research, an efficient territorial planning approach, the removal of obstacles to development, acting on safety conditions, bureaucratic efficiency, the functionality of public services and the adequacy of infrastructures the company requires; improvement of the quality of life.

Territorial marketing operations

In relation to economic entrepreneurs/businessmen and operators to the territory, beyond the strategic approach concerns drawing in/procuring new and additional external investments and as such it is subjected to pre-arrangement of an area product/output offer that may qualify the territory as a possible location for new businesses and therefore improve the interest in the territory, using approaches similar to those used to preserve those companies already present on the market in question/of reference, and aimed at finding investors who have potential interest therein.

What beneficial effects can be had in the territory and in the companies from the development of territorial marketing programmes? The benefit for the established choice of investing business becomes evident thanks to a series of factors that are not always foreseeable or assessable beforehand, but whose impact is noticeable after establishment therein. The companies already operative within a territory may be seen both as area product/output components and therefore potential interest for new investors, and also as users of the territory

and therefore interested in specific marketing operations. To promote development of the area concerned, the favourable conditions and relevance for locating productive investments are to be presented as true rooting prospects for potential investors in the territory. Such prospects depend from the possibility for the business to attain a level of profitability in line with expectations. Consequently, a prior analysis of market expectations for the product or the service concerned in the investment, also in terms of cost and potentiality of revenue development, a prior analysis as to the presence or otherwise of adequate infrastructures for the company requirements, a control as to the presence or otherwise of an environment with high external effects that translate into cultural, contextual and economic conditions favourable to the development of productive activities/assets. The attainment of territory visibility, obtained locally by formulating and articulating territorial market strategies, involves, on one side, negative external effects, in the sense that the objective is to promote local to remove the weak points and points that hinder the realisation/attainment of positive performance on the part of the internal and external investors of the area and, on the other hand, favourable conditions and establishment opportunities in the area, by promotion that is able to communicate to the outside/exterior their presence so as to attain investments.

The realisation of these operations and the difficulty of local political and economic participants, such as public administrators that do not operate according to management logic, to carry out territorial activity and to accept a new manner to administer the territory induces to provide itself with a streamline development Agency able to act as collector with all the stakeholders, whose institutional order is able to refer to a combination between public and private, appointed to exercise similar functions. Its main objectives are to promote the territory and to have its potential and its characteristics known, to supply assistance and consultation to investors, both in the choice stage of the area where the investment is to be made, to be the only representative for potential investors, with roles of brokerage and articulator between the company and the local social-economic context. The Agency is, furthermore, to carry out the task of implementing development policies of the existing activities/concerns and the task of management of the connections between the external investment and the territory; in this way one aims at maximising the impact that an external investment can produce on the territory, in terms of potential connections with the existent concerns/activities. The dual role is on one hand to activate, exploit and promote an intense network of relations within the local system and on the other hand to create a link with the outside, promoting economic specificity and territory development potentiality, establishing contacts with international business. Its procurement/brokerage concerns improving local-global relationships in order to guarantee its correct competitiveness within the territorial system.

Promoting local territorial context and in particular investment opportunities in the area cannot exclude service connections/know-how and utility within the territory, to be seen qualitatively differently in the eyes of external potential investors, thus stimulating demand; nor can it exclude the request for external investments on the basis of the sole consideration of minor costs adopted by the companies, as a reason for their nomination; but if anything the choice should fall on companies that compete on the basis of parameters such as process innovation, product innovation, environment friendly, technologic innovation. The established choice should cover comprehensively element-opportunity investment, conditions and convenience of a serviceable area for productive induction, services placed at disposal for the planning and realisation of the investment, present productive activity, collaboration with local investors.

Financial methods/procedures and tools

For the Agency to operate, tools are required that indirectly but positively contribute to its approach, although they may not be within its full availability. Hence attention must be paid to tools of a financial nature. However, relatively reduced distinctive importance and their interest as a competitive advantage may be, having a different extent of intensity over the entire national overview, and though said tools do not sufficiently favour company localisation, requiring other approaches to exploit social and economic conditions in the area, nonetheless the preparation tools of a financial nature conditions the choice of the place of induction/establishment of the productive concern and is therefore necessary for a territory which does not contemplate it.

On the capital market the lack of actual capital negatively affects small and medium sized companies, in particular high-tech companies and new companies with high growth/expansion potential, also companies with reduced expansion potential that cannot find finance/loans for their expansion projects without outside risk or venture capital. Furthermore, finance systems based on loans, and therefore debt capital (borrowed capital), and not enough on the risk capital, hinder the creation of small and average sized companies/businesses, as the companies cannot sustain the costs/expenses of the guarantees requested by the credit institutes. In similar conditions, public aid concessions to support the supply of venture capital may represent, in some cases, a means to encourage private capital. In this sense risk capital emerges intended as equity loan (equity stakes in the company and shares issued for investors) and quasi-equity (investment whose return is based on profits and on losses of the destined company and are unguaranteed should the company go badly) to companies in the initial stage of their growth/expansion.

The need of the companies to increase their own capital, to diversify finance sources, to substitute short term debts with mid-term or long-term debts and to increase contractual power with the banks, refer to further investments. A greater contribution of its own capital is required to attain investments in innovation, to sustain and support internationalisation processes, to amend/adjust an organisation process; furthermore, the supply of an adequate patrimony allows the company to procure capital, to have at its disposal a better rating and to obtain less onerous financing. The requirement of the small and middle-sized companies to increase its own capital, with an interesting industrial project and with potential expansion, may be satisfied through private equity operations on the part of public or private subjects: closed-end funds promoted by banks or private companies, finance participation company, public holding companies, regional financing. This type of operation consents acquisition of holdings in the companies of mid and long term, with the main objective being to sustain the expansion of the company through strengthening of capital, support of industrial projects, partner substitution, solutions to problems to do with generational transition, to internationalisation, objective..... aimed at reaching a capital gain on share sales. It is an unquoted investment concern/activity in company risk capital, aimed at exploiting the company concerned in the investment in order to divest within a mid-long term. In particular, venture capital activity regarding investments in the initial and delicate phases of the business/company cycle, is a moment of private equity directed at private equity funds specialised for small and intermediate sized companies fulfil the fund-company alliance through acquisition of a minority stake/holding in the companies. As minority partners, the funds work together with the entrepreneur for the growth of the company, and in turn the holding value, to be resold to the entrepreneur himself or herself earning on the capital gain. The advantages for the company deriving from the entry of the fund are realised in terms of development initiatives, such as acquisition of new firms, de-

location, export increase, power versus the banks and suppliers, procurement of expert managers, synergies and partnerships with other firms, easier generational transition.

As concerns the company's choice of investor, the role of institutional investors in the risk capital is not limited to the capital contribution, but is a strategic and organizational type of contribution: strategic support in the choice of investment, contribution of managerial competence and consequent reorganisation of human resources, fiscal planning, management contribution especially in family businesses, acquisitions, international agreements and contacts, improvement of the company's image on the market and banks, improvement of management control systems. Alternatively, participative financial tools/tools are mixed tools/tools associating share and bond characteristics, giving the right to capital redemption and payment of interests, depending on the performance of the company. The unitholders are allowed a holding in the financial results of the company; for the company the tools/tools are a further source of financing, being able to command debts whose interests are paid in function of profits obtained.

Participative loans are for example average and long term, supplied by banks without guarantees, but on condition that the company undertakes to recapitalise through partner contributions or reinvestment of profits. The advantages consist in obtaining, against a financial effort of the partners, more financing without guarantees, at concessionary rates and partly variable in function of the profits, and also an improvement in rating consequent of the increase in wealth/assets.

Through portfolio guaranteed loans, the financiers create average term credit portfolio, made up of homogeneous financing in duration, finality, technical characteristics and guaranteed by CONFIDI. The role of CONFIDI is also to be seen in concessional finance as an alternative to traditional finance sources. In this sense, since organisms have a cooperative and syndicated structure and exercise a mutual form of collective guarantee of loans in favour of partnerships or associations, they carry out the task of sorting/choosing the concessional finance opportunities, guaranteeing operative assistance and assistance in the preliminary phase. Locally, the sector associations, the Chambers of Commerce, the provinces, regions and other bodies/entities promote constitution of guarantee funds with partial or total coverage of eventual insolvencies on the part of the partnership companies versus the agreed credit institutes.

The main objective of the CONFIDI are to increase the dimension by means of bundling and amalgamations, to offer quality service at competitive prices, to offer financial services converging with requirements of small and middle-sized companies. The Agency is able to command such tools/tools and therefore candidate itself to act as collector in those mechanisms in promotional function of the territory.

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THE EFFECT OF OIL PRICE VOLATILITY ON ASEAN STOCK MARKET PERFORMANCE – EVIDENCE FROM BURSA MALAYSIA AND PHILIPPINE STOCK EXCHANGE

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Purpose – The purpose of this paper is to investigate the effect of changes in oil price on the share prices of public listed companies in Bursa Malaysia Securities Berhad and Philippine Stock Exchange (PSE).

Design/methodology/approach – The issue of stock price sensitivities towards changes in oil price are examined based on the past literature. Using time series data from January 1986 through December 2006, the study employs Engle-Granger Cointegration test and Error Correction Model.

Findings – The study reveals that there is a significant long-term relationship between oil price movements and the performances of the two stock markets. The movements of oil price and the market indexes in both stock markets are found to be positively correlated. However, the statistical results from Granger Causality test show an absence of dynamic relationship between oil price movements and the performance of both stock markets.

Research limitations/implications – An understanding in the direction of the oil price movements or the trend movements is important for stock traders and international fund managers in formulating their investment strategies in the future. The paper offers scope for further research into the application of out-of-sample forecasting via impulse response functions and variance decomposition techniques.

Originality/value – The paper contributes to the finance literature on investment strategies and efficient market theory.

Keywords – Kuala Lumpur Composite Index, PSE Composite Index, Oil Price, Engle-Granger Cointegration Test, Error Correction Model, Cusum Test for Structural Break, Granger Causality Test
Paper type – Empirical research

INTRODUCTION

Changes in commodity prices certainly have some impacts on a country's economy. This is true with regard to the crude oil prices. Oil is a major commodity which is used in almost every aspect of an economy. The upward movement of oil price would put heavy burden on an economy as it is one of the important cost components in the production of goods and services. This has been observed recently when the crude oil price shot to almost USD140 per barrel sometime in June 2008. Numerous studies have been done on investigating the interrelationship between movement in crude oil prices and local economy (Hamilton, 1983, Gisser and Goodwin, 1986; Ferderer 1996). Most of the studies concentrate on the relationship between changes in oil price and the reaction of the economic activity that ensues.

Sadorsky (1999) and Lee (1992) examine the interrelation between energy prices, economic activity and employment. Basher and Sadorsky (2006) elucidate the strong link between energy

sector and financial markets in generating economic growth. They explain that rising oil prices will trigger an increase in production cost, which in turn dampen cash flows. The net result is a fall in stock prices. This explanation is valid in the case of manufacturing companies in which majority of them consume oil as factor input. Basher and Sadorsky (2006) further explain that as there are more companies in the world consume oil as a factor of production rather than produce oil as revenue, the overall impact of an increase in oil price on the stock markets is likely to be negative. Their research reveals strong evidence that oil price risk exerts significant impact on stock price return in the stock markets. Their findings are consistent with the results from earlier study undertaken by Ferson and Harvey in 1995.

Public listed companies in Bursa Malaysia have been the engine room for economic growth in Malaysia. These companies have a big role in the country's 'entrepreneurialization' program as they create a platform for small and medium size entrepreneurs to penetrate into new markets locally, as well as, overseas. A poor performance of these public listed companies would imply a slowdown in economic activities for the smaller size entrepreneurs. Besides being viewed as pillars in the economy, these listed companies also have a crucial role in strengthening and widening the national economic activities as a whole. These listed companies play an important role in increasing Malaysia's export value and reducing the nation's dependency on imported goods.

Due to the huge contributions of public listed companies in the nation's industrial development and economic growth, the government has taken actions to design a strategic plan for both public listed companies and small and medium size industries. In the case of Malaysia, the Ministry of International Trade and Industry (MITI) has formed Small and Medium Industries Development Corporation (SMIDEC) to help establish synergic drive between public listed companies and small and medium size industries. Nonetheless, these public listed companies are still vulnerable to the external macroeconomic factors, such as the Asian Debt Crisis in 1997 and the recent hike in oil prices in 2008.

This study tries to investigate the impact of fluctuations in crude oil price on the stock market performance in Malaysia and Philippines. The recent hike in oil price has left tremendous impact on the local economy, particularly on general price levels. As such, respective government has put up a lot of effort to curb the expectation of inflation. One of the measures involves the central bank decision to raise interest rates. Subsequent to this, consumer credit becomes more expensive and economic activities are expected to contract. Burbridge and Harrison (1984) find that oil price shocks, during the 1973 – 1974 oil embargo, result in some negative impact on USA, Canada, UK, Japan and Germany's national GNP and unemployment rate.

This study is regarded as a preliminary research with the objective to determine the effect of changes in oil price on the performance of stock markets in Malaysia and Philippines (proxied by Kuala Lumpur Composite Index (KLCI) and Philippine Stock Exchange Index (PSEi)). Haung *et.al.* (1996) examine the relationship between daily oil future returns and stock returns in the United States. They find that oil futures do lead some oil company stock returns but do not have much impact on the market indices in general. Chen *et.al.* (1986) examine the impact of oil price changes on asset pricing. They argue that asset pricing should be influenced more by "systematic" risk or the market risk.¹²⁰ They find no overall effect by oil price on stock prices. Nonetheless, oil price will continue to have impact on the economy as suggested by an OECD

¹²⁰ This is in line with the asset-pricing theories of (Ross 1976) and Cox *et.al.* (1985)

study¹²¹. It suggests that the global dependence for oil will continue, especially in the transportation sector.

Specifically, this study tries to answer the following research questions:

1. Does the fluctuation in the oil price affect the performance of listed companies in the short-run, as well as in the long-run?
2. What type of relationship can be established between the two stock market indices and the oil price?
3. What is the lead-lag relationship between the two stock market indices and the oil price?

DESIGN/METHODOLOGY/APPROACH

The research instruments used in this study involve normality test, unit root test, Engle-Granger cointegration test, ARIMA, error correction modeling, vector auto-regressive modeling, and Granger causality test to investigate the relationship between the two stock market indices (KLCI & PSEi) and crude oil price (OP). The movements of these three variables against the time line are shown in Chart 1, Chart 2, and Chart 3 respectively. The KLCI and PSEi are broad-market indices and they are used as proxies for measuring the performance of stock market in Malaysia and Indonesia respectively. In the pursuit to investigate the effect of oil price changes on the performance of public listed companies, the Engle-Granger cointegration procedure (1992) is strictly followed.

Basically, this study will perform stationary tests on the time series variables, followed by Engle-Granger cointegration test as well as Granger's causality test in Vector Error Correction Model (VECM). This study takes 17 years monthly observation on changes in the level of oil price. The study period spans from January 1986 through December 2006 involving 252 data points. In evaluating the statistical relationship between the OP and the performances of the two stock markets, a procedure in Engle-Granger Co-integration test (1992) is observed. Statistical analyses will be performed to provide empirical linkage between the two stock market performances and OP. This cointegration test is a statistical concept introduced by Granger (1981), Granger (1986), Granger and Weiss (1983) and Engle and Granger (1987). This modeling technique has received wide attention among academics and is beginning to be applied to test the validity of various theories and models in Economics and Finance. Cointegration is an econometric technique for testing the correlation between non-stationary time series variables. Two variables are said to be cointegrated when a linear combination of the two is stationary, even though each variable is non-stationary on its own (at level). Take X_t and Y_t as time series variables. Usually when X_t and Y_t variables are non-stationary, it is expected that a linear combination of the two variables would also be non-stationary. However, this notion has been proven wrong by Engle and Granger (1987). According to Granger (1981) and Engle Granger (1987), components in vector X_t is cointegrated at d, b degree if:

1. All components of X_t is $I(d)$
2. There is a nonzero vector $\beta = (\beta_1, \beta_2, \dots, \beta_n)$ so that the linear combination of $\beta X_t = \beta_1 X_{1t} + \beta_2 X_{2t} + \dots + \beta_n X_{nt}$ will be cointegrated at $(d-b)$ degree where $b > 0$. The vector β is the cointegration vector.

¹²¹ Organization for Economic Co-operation and Development (OECD Economic Outlook no. 76)

In order to avoid the problem of non-stationarity, it is necessary to make use of first (or higher) differentiated data. Such differencing, however, may result in a loss of precious data points on long-run characteristics of the time-series data. However, Engle and Granger (1987) show that, if there is an equilibrium relationship between such variables, then the disequilibrium error should fluctuate about zero *i.e.* error terms should be stationary. The unit root test is important in determining the stationarity of time series data. Whether the variables tested has the tendency to return to its long term trend after a shock (*i.e.* it is stationary) or exhibits a random walk pattern (*i.e.* it has a unit root), it is an important question to be answered prior to any further data analysis as the latter would suggest spurious regression relationship. This study uses the Augmented Dickey Fuller (ADF) technique to perform unit root test. The ADF model is expressed as follows:

$$\Delta X_t = \lambda_0 + \lambda_1 T + \lambda_2 X_{t-1} + \sum_{i=1}^n \lambda_i \Delta X_{t-i} + \varepsilon_t \text{ where } i = 1, 2, 3 \quad (1)$$

The hypotheses being tested are:

H₀: $\lambda_2 = 0$ (the data is not stationary, it contains unit root)

H₁: $\lambda_2 < 0$ (data is stationary, it does not contain unit root)

Once this requirement is met, X_t and Y_t variables are said to be cointegrated and a method of Error Correction Model (ECM) can be pursued. Vector Error Correction Model (VECM) is a restricted Vector Autoregressive (VAR) method which involves Johansen-Juselius' multivariate cointegration. VECM restricts the long run behaviour of endogeneous variables to converge to their cointegrating relationship while allowing for short run adjustments. The VECM would allow us to separate short-term from long-term relationships. The VECM model is shown below:

$$\Delta X_t = \mu_i + \sum_{i=1}^n A_i \Delta X_{t-i} + \sum_{i=1}^n \xi_i \Theta_{t-i} + v_t \quad (2)$$

where: X_t is in the form of $n \times 1$ vector, A_i and ξ_i are the estimated parameters, Δ is the difference operator, v_t is the reactional vector which explains unanticipated movements in Y_t and Θ (error correction term)

The study also applies Ordinary Least Square Method (OLS), which is subjected to Classical Normal Linear Regression assumptions. Those critical assumptions are: a) time-series data must be stationary, b) residual or error term must be homoscedastic, c) residuals are independent of one another or there is no autocorrelation between residuals, d) residual distribution is normal, and e) independent variables are not related to one another or there is an absence of multicollinearity. In order to ensure all statistical findings are valid, the assumptions must be observed. For this reason, diagnostic tests consisting of Augmented-Dickey Fuller unit root test, Moments of Specification Test/White test, Durbin-Watson test, Anderson-Darling test and Variance Inflation Technique are carried out. In investigating the relationship between stock market performances and movements in oil prices, the study assumes one causal direction: changes in oil price affect stock market performances in Malaysia and Philippines. Specifically, the model of the study is developed as follows:

$$SMI_t = \beta_0 + \beta_1 OP_t + \varepsilon_t \quad (3)$$

where: SMI = Stock market Index, OP = Oil price Movements, β_0 = Intercept, β_1 = Slope Coefficient, ε_t = Error Terms

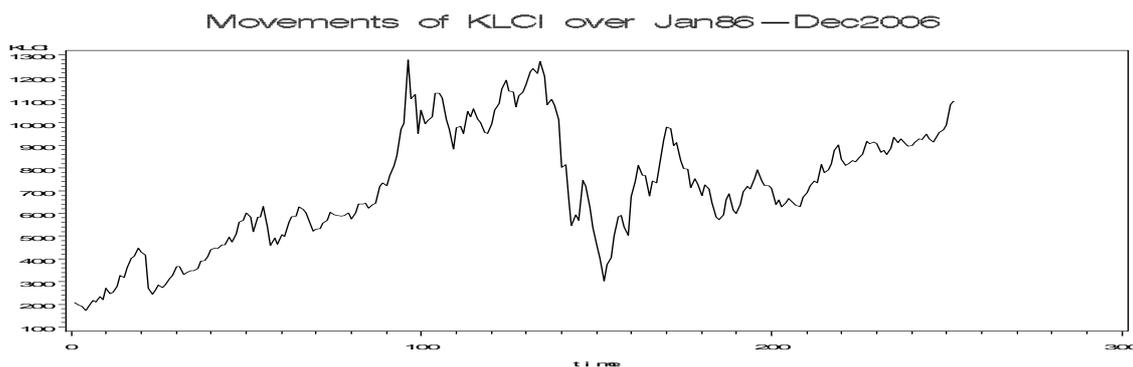


Chart 1: Movements of KLCI

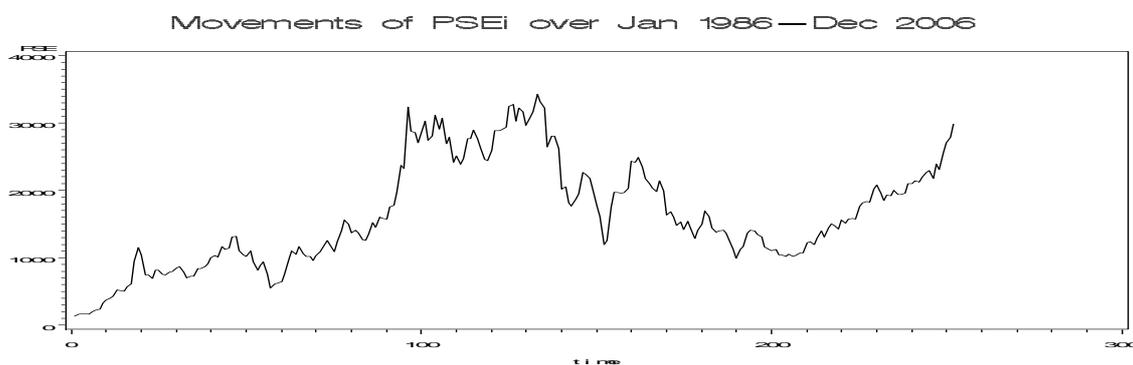


Chart 2: Movements of PSEi

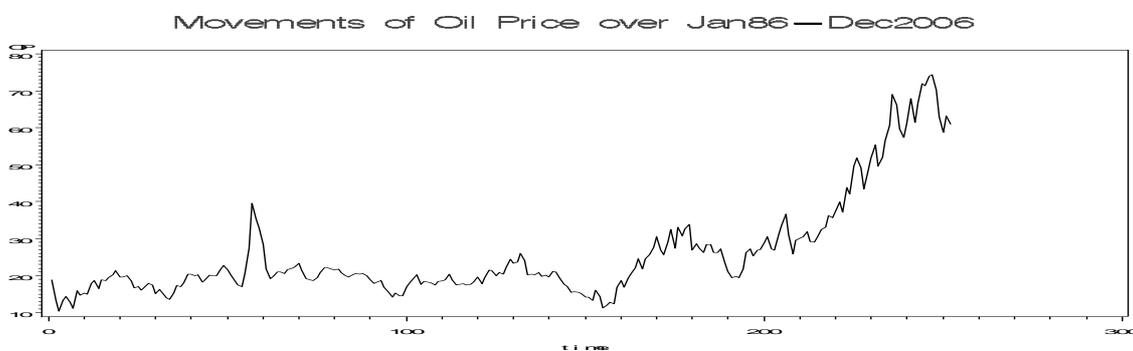


Chart 3: Movements of Oil Price (OP)

FINDINGS

To demonstrate the effect of changes in crude oil price (OP) on the performance of stock market, the procedures in time-series econometric modeling are followed. Specifically, these procedures involve OLS regression, ARIMA, cointegration test and VECM. To examine the data stationarity, Augmented Dickey-Fuller (ADF) unit root test is used and the results are shown in tables below.

Table 1 shows the results from the unit root tests performed on KLCI and PSEi. A hypothesis testing is carried out to determine the significance level of the stationarity test. P-values are reported, indicating the level of significance. The test statistics presented in Table 1 clearly show with all five different values of lags, it is noticeable that both KLCI and PSEi are non-

stationary at all lags. Similarly, the test statistics presented in Table 2 also show crude oil prices (OP) are non-stationary at all lags. On the other hand, Table 3 shows the first-differenced KLCI and PSEi are stationary and the same goes to the first-differenced OP as shown in Table 4. This implies that the two stock market indices and OP are integrated at first difference and this fulfills the primary requirement set forth in Enger-Granger Cointegration test.

<i>Type</i>	<i>Lags</i>	<i>p-value (KLCI)</i>	<i>p-value (PSEi)</i>
<i>TREND</i>	1	0.4725	0.6871
	2	0.2358	0.6092
	3	0.3925	0.6833
	4	0.4660	0.6975
	5	0.4938	0.6613

Table 1: Stationarity Test for KLCI & PSEi via ADF

H₀: Data series have a unit root (non-stationary)

H₁: Data series have no unit root (stationary)

Type	Lags	p-value	Tau
TREND	1	0.6880	-1.83
	2	0.8337	-1.48
	3	0.8721	-1.35
	4	0.9397	-1.01
	5	0.9463	-0.96

Table 2: Stationarity Test for OP

H₀: Data series have a unit root (non-stationary)

H₁: Data series have no unit root (stationary)

Type	Lags	p-value (KLCI)	p-value (PSEi)
TREND	1	<0.0001	<0.0001
	2	<0.0001	<0.0001
	3	<0.0001	<0.0001
	4	<0.0001	<0.0001
	5	<0.001	<0.001

Table 3: Stationarity Test for First-Differenced KLCI & PSEi via ADF

H₀: Data series have a unit root (non-stationary)

H₁: Data series have no unit root (stationary)

Type	Lags	p-value	Tau
TREND	1	<0.0001	-12.52
	2	<0.0001	-10.36
	3	<0.0001	-9.66
	4	<0.0001	-8.13
	5	<0.0001	-7.58

Table 4: Stationarity Test for First-Differenced OP via ADF

H₀: Data series have a unit root (non-stationary)

H₁: Data series have no unit root (stationary)

The test result presented in Table 5 clearly shows an acceptance of alternative hypothesis for both stock markets. This statistical result suggests that there is a significant positive relationship between the individual stock market and OP. However, for OLS estimation in general to be statistically valid, Engle-Granger (1992) suggests that the error terms from a model must be time-invariant, that is, stationary. For this reason, the test for error terms stationarity is warranted. The results from Dickey Fuller test and Augmented Dickey Fuller test presented in Table 6 and Table 7 show that the long-term residual (r) is stationary at one of the lags. This finding indicates two important implications. First, having the long-term residuals stationary implies that there is a significant long-term relationship between the individual market and OP.

Secondly, having proven the long-term error terms are stationary, the individual stock market index and OP are said to be co-integrated. Therefore, Vector Error Correction Model can be mobilized for further analysis.

<i>Variables in KLCI Model</i>	<i>Parameter Estimate</i>	<i>Standard Error</i>	<i>t-Value</i>
<i>Intercept</i>	527.1777	32.9633	15.99*
<i>OP</i>	6.9149	1.1228	6.16*
<i>Variables in PSEi Model</i>	<i>Parameter Estimate</i>	<i>Standard Error</i>	<i>t-Value</i>
<i>Intercept</i>	1356.9743	104.2430	13.02*
<i>OP</i>	10.6011	3.5510	2.99*

Table 5: Significance Test for Stock Market Index and OP Relationship

H₀: There is no long-term relationship between Stock Market Index and OP

H₁: There is a long-term relationship between Stock Market Index and OP

<i>Type</i>	<i>Lags</i>	<i>p-value</i>	<i>Tau</i>
<i>ZERO MEAN</i>	0	0.0211	-2.30
	1	0.0198	-2.32
	2	0.0093	-2.60
	3	0.0154	-2.42
	4	0.0213	-2.30

Table 6: Stationarity Test for Residuals (*r*) in KLCI Model

H₀: Residuals have a unit root (non-stationary)

H₁: Residuals have no unit root (stationary)

Type	Lags	p-value	Tau
ZERO MEAN	0	0.0514	-1.93
	1	0.0534	-1.91
	2	0.0433	-2.00
	3	0.0530	-1.92
	4	0.0558	-1.89

Table 7: Stationarity Test for Residuals (r) in PSEi Model

H_0 : Residuals have a unit root (non-stationary)

H_1 : Residuals have no unit root (stationary)

Vector Error Correction Model (VECM)

Vector Error Correction Model is deployed to investigate both long-term and short-term responses between the two tested variables. Based on the regression results, the optimum lag-length for the VECM lies at lag 2 (as indicated by its lower AIC). Specifically, the test results are shown in Table 8 below.

Dependent Variable : dKLCI				
Variables	Parameter	Standard Error	t-Value	P-Value
Intercept	3.0702	3.4155	0.90	0.3696
ldop	-0.5565	1.3015	-0.43	0.6693
l2dop	-0.1407	1.2959	-0.11	0.9136
lr	-0.0364	0.0141	-2.58	0.0105*
ldklci	0.0373	0.0622	0.60	0.5493
l2dklci	0.2141	0.0626	3.42	0.0007

Table 8: Error Correction Model at Lag 2 or ECM(2)

<i>Dependent Variable : dPSEi</i>				
<i>Variables</i>	<i>Parameter</i>	<i>Standard Error</i>	<i>t-Value</i>	<i>P-Value</i>
<i>Intercept</i>	11.3565	9.9493	1.14	0.2548
<i>ldop</i>	-1.5190	3.7973	-0.40	0.6895
<i>l2dop</i>	-3.8006	3.7799	-1.01	0.3157
<i>lr</i>	-0.0267	0.0130	-2.06	0.0407*
<i>ldpsei</i>	0.0134	0.0638	0.21	0.8336
<i>l2dpsei</i>	0.0874	0.0638	1.37	0.1725

Table 9: Error Correction Model at Lag 2 or ECM(2)

The *lr* is the error correction term at lag 1 and it measures the statistical long-term relationship between oil price (OP) and the two stock markets performances. Its significance test is reported by the p-value. The p-value in Table 8 ($0.0105/2 = 0.0052$) indicates that there is a significant long-term relationship between OP and *dklci*. Meanwhile, the p-value in Table 9 ($0.0407/2 = 0.0203$) shows the same inference and both are significant at 5% level. In these two instances, the individual p-value is divided by two because VECM lies on the premise of one-tail residuals distribution. The coefficient on the error term at lag 1 is called *speed of adjustment* and it measures the discrepancy rate between short-run disequilibrium to the long-run equilibrium. Notice that the speeds of adjustment for KLCI model and PSEi model are 0.0364 and 0.0267 (ignore -ve sign) respectively. These two figures indicate that KLCI and PSEi adjust from their state of short-run disequilibrium to long-run equilibrium at the rate of 3.64% and 2.67% respectively.

Given the presence of long-term relationship between the two individual stock markets and OP, there is a potential short-term relationship between them as well. To investigate if such a relationship exists, a Granger Causality test is performed and its test statistic is reported in Table 10 below (via Simultaneous Wald F-test). The F-value reported in Table 10 indicates the acceptance of null hypothesis, which suggests an absence of short-term relation between KLCI and OP. Similarly, the F-value reported in Table 11 also indicates an absence of short-term relation between PSEi and OP. These two findings clearly show that the two models have been handicapped by their inability to demonstrate the lead-lag relationship between OP and the two individual stock markets. To ensure that the Ordinary Least Square (OLS) assumptions are in tact, diagnostic tests are performed on the two vector error correction models.

Source	DF	Mean Square	F-Value	Pr>F
Numerator	2	285.7119	0.10	0.9048 ns
Denominator	243	2856.0137		
<i>ns = not significant</i>				

Table 10: Short-term Relationship Between KLCI and OP

Source	DF	Mean Square	F-Value	Pr>F
Numerator	2	14635	0.61	0.5464 ns
Denominator	243	24153		
<i>ns = not significant</i>				

Table 11: Short-term Relationship Between PSEi and OP

Moments of Specification Test or White Test

To see whether the error terms have constant variance, moments of specification test or White test is performed. The test results are shown in Table 12. From the test statistic in the tables above, the study fails to reject H_0 at 5% significance level. This indicates that the residuals are homoscedastic or having constant variance for both models.

Dependent Variable (y):	dKLCI	dPSEi
White Test	<u>Pr > ChiSq</u>	<u>Pr > ChiSq</u>
	0.0794	0.1341

Table 12: Moment of Specification Test

H_0 : Homoscedastic (Constant variance in ϵt)

H_1 : Heteroscedastic (Inconstant variance in ϵt)

Test for Normality

Before any statistical inference can be made, the error terms distribution must be checked for normality. The test statistics for normality are based on the empirical distribution function, which involves Shapiro-Wilk, Kolmogorov-Smirnov, Cramer-von Mises, and Anderson-Darling statistics.

Variable: r3

Test		P-Value (KLCI Model)	P-Value (PSEi Model)
Shapiro-Wilk	W	<0.0001	0.0001
Kolmogorov-Smirnov	D	<0.0100	0.0100
Cramer-von Mises	W-Sq	<0.0050	0.0050
Anderson-Darling	A-Sq	<0.0050	0.0050

Table 13: Test for Normality

H₀: ECM residuals are normally distributed

H₁: ECM residuals are not normally distributed

The results from all the normality tests as shown in Table 13 (see p-value) indicate the rejection of null hypothesis at 5% significance level. This means that the error terms from the two ECM(2) are not normally distributed. However, given large sample size (n=252), this result is not considered to be a major shortcoming in the financial modeling.

Autocorrelation Test (via Durbin-Watson Tests)

Autocorrelation Test is performed in order to examine whether the residual are independent of one another. The test result is presented in Table 14. From the p-values reported, it is evident that the residuals are independent of one another in the two models.

	Dependent Variable: dKLCI	Dependent Variable: dPSEi
<i>Pr < DW (Positive Autocorrelation)</i>	0.2811	0.3971
<i>Pr > DW (Negative Autocorrelation)</i>	0.7189	0.6029
Number of Observation	249	249

Table 14: Autocorrelation Test

H₀: ECM residuals are independent of one another

H₁: ECM residuals are not independent of one another

Variance Inflation Test (VI)

To examine whether the independent variable are not related to one another, Variance Inflation test (VI) is carried out and the result is as shown in Table 15.

Variable	DF	Variance Inflation (dKLCI)	Variance Inflation (dPSEi)
Intercept	1	0	0
ldop	1	1.00379	1.0102
L2dop	1	1.00434	1.0102
lr	1	1.01884	1.0143
ldKLCI	1	1.00939	1.0128
l2dKLCI	1	1.01039	1.0138

Table 15: Variance Inflation Test

The test results from the above show that all independent variables in the two models are not subject to multicollinearity problem as their variance inflation values lie below 10. As a whole, the overall diagnostic tests show that the two models possess credible econometric properties and are considered statistically valid.

Test of Model Stability

Last but not least, the Cumulated Sum of Residuals test or CUSUM test is performed to test the constancy of the coefficients in the two VECM models. As shown in chart 4 and 5, the individual CUSUM analysis indicates the presence of parameter (short-run and long-run parameters) stability in the two VECM models over the sample period. This suggests that the two VECM models are stable over time or in other words, the model parameters are constant across the full 21 years (January 1986 through December 2006).

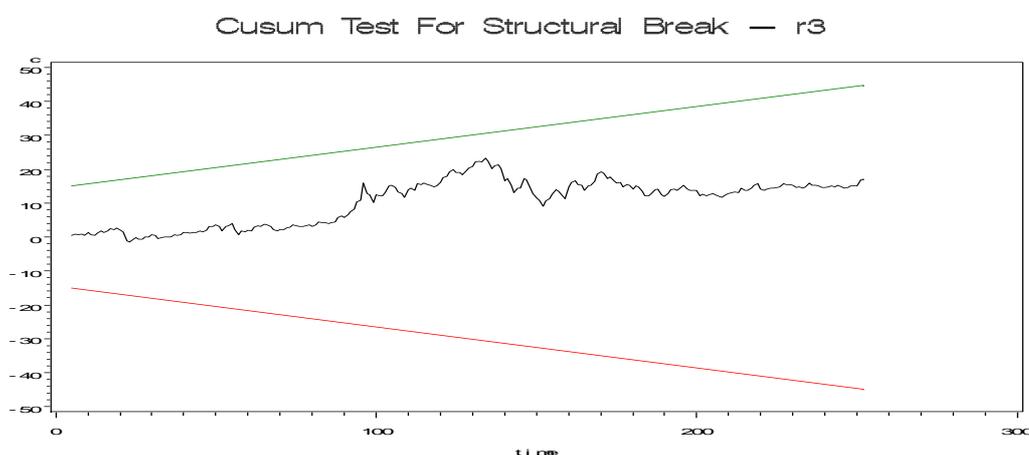


Chart 4: Plot of CUSUM in Estimated ECM(2) involving KLCI

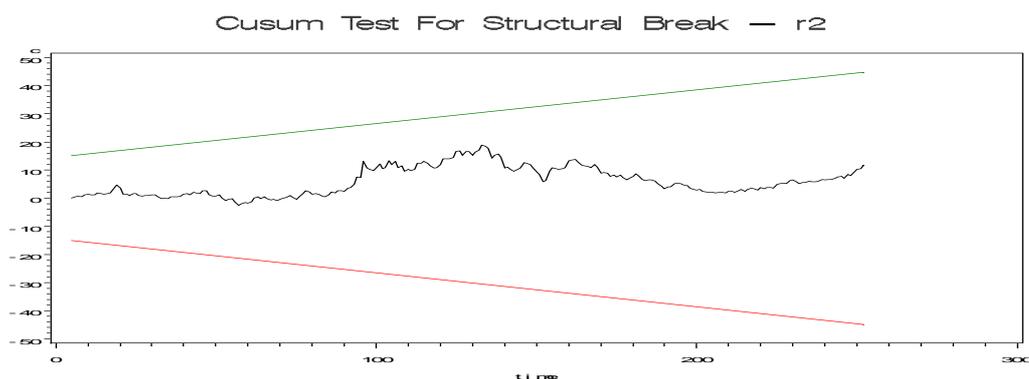


Chart 5: Plot of CUSUM in Estimated ECM(2) involving PSEi

CONCLUSION

From the evidence presented, there is a statistically significant long-term relationship between the performance of the two stock markets (KLCI & PSEi) and the movements of crude

oil price (OP). However, the empirical results from Granger causality test show no significant short-term or dynamic relationship between the two individual stock markets and OP as indicated by the statistical results in the Simultaneous Wald F-test. As such, no lead-lag relationship can be established between the two observed variables. Even though the study fails to support the presence of dynamic relation between OP and the two stock markets in South East Asia, the majority of its findings are still beneficial for stock traders and international fund managers in formulating their investment strategies in the future. For instance, a steady increase in oil price can be regarded as an early warning that the stock market is about to make a correction in its course. Although there are many other relevant factors that can influence stock market performance, the oil price movement seems to be one of the credible factors. As a whole, the empirical findings are consistent in both stock markets and therefore this study has achieved its primary objectives.

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JOURNEY TOWARDS CULTURAL COMPETENCE: DEVELOPING UNIVERSITY TEACHERS

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Purpose - This paper examines the importance of intercultural training for lecturers; describes innovative training to address this, based on a new theoretical framework; and evaluates training and framework.

Background - UK HE is becoming increasingly internationally diverse. The UK HEI population is also very multicultural. The proportion of lecturers who come from outside the UK has risen. It is, therefore, important that students develop intercultural awareness. One way of doing this is to work with students. A more sustainable approach focusses training on lecturers who will embed cultural awareness into their practice.

Method - This paper sets out a theoretical framework which underpins training developed for lecturers as part of a Postgraduate Certificate.

The paper describes the training and evaluates the effectiveness of this.

Findings and results - Findings show that participants were apprehensive about the training. Afterwards they expressed surprise at the participative approach, but were pleased with outcomes. They enjoyed the exercises and the training appeared to have opened up their outlook. They praised the freedom to share thoughts with others.

Conclusions - Findings show that participants learnt intercultural skills to use in class. This was due to the design. The nature of the training encouraged reflection on cultural diversity and participants attested to the effects this would have on their teaching. These results replicate other studies

Implications - The implications are immediate in the design of intercultural training in different contexts. It has already been used to design innovative training for students and managers. In both cases the same far-reaching results were achieved.

Category of presentation: Research paper

Keywords: Intercultural, learning, higher education, lecturers, diversity

INTRODUCTION

UK higher education is increasingly becoming diverse. In 1996/7 the total number of non-EU students at UK HEIs was 109,940, whereas ten years later this more than doubled to 239,210. The UK HEI population is also very multicultural (see HESA, 1998 and 2008). Similarly, the proportion of lecturing staff from outside the UK in British higher education institutions has risen.

At the same time, the world of work has become more global and developments in travel, technological communication and mobility have led to change in the global employment market (Ready, 2008 and Foster, 2008). It is, therefore, important that students are helped to develop an awareness of cultural differences and an outlook which will help them manage this constructively, both in their studies and when they graduate (Butt, 2007, Holmes, 2005). Kilpatrick et. al. published their frame of reference for intercultural education in 1949, but it is only in recent decades that its full implications have been apparent in the UK HE context.

One way of addressing this need is to work with students on intercultural training programmes. Previous work by this author (Higson, 2008 and Higson, 2010 in preparation) examines the effectiveness of offering intercultural training to students, using a similar intervention to that analysed in this paper. This work, however, indicates that such approaches

are not as sustainable as focussing training on teaching staff who would then embed their newly gained cultural awareness into practice, and amongst their students (Volet and Tan-Quigley, 1999; McAllister and Irvine, 2000). Teekens (2003) highlights the need for such approaches and the lack of previous attention to teacher training for the intercultural classroom. Harman (2005) goes further and in his review of the Australian literature on internationalisation and higher education notes that 'there is almost a complete absence of material on the active involvement of academics in internationalization...' (p.131). This view emphasises the importance of initiatives, such as those which are the topic of this paper.

It is important that such work is research informed. This paper sets out a theoretical framework which underpins training developed for new teaching staff as part of a compulsory Postgraduate Certificate in Professional Practice. The framework seeks firstly to encompass the needs of home (UK students) and staff, whose cultural experience is often not great (Herzfeldt, 2007); secondly, the needs of overseas students and staff who bring a mixture of learning approaches which can enhance the cultural experiences of their home colleagues and should not merely be regarded in 'deficit' to UK learning approaches (Ippolito, 2007); and finally, the needs of a very complex complete learning community which should not be stereotyped, but bring a range of 'stories' with them (Welikala and Watkins, 2008).

This paper describes the training intervention which was developed on the basis of this framework, and evaluates the effectiveness of this training.

LITERATURE REVIEW

As mentioned earlier, until recent years there has been little concentration in the literature or in practice on the training of academic staff as a method of preparing students in an intercultural classroom (Ismail and Hull, 2001; Tamkin et. al., 2002; Bodycott and Walker, 2000). There has, however, been much work on approaches to training students. The underlying principles on intercultural learning approaches are the same for both constituencies and this is why the author of this paper uses the theoretical framework set out below as the premise to all such interventions. This literature review will, therefore, concentrate on the literature that focuses on preparing academic staff for intercultural training and the section on the theoretical framework will look more on intercultural awareness generally.

For Rogers-Sirin and Sirin (2009) the need to ensure that teachers are culturally competent is 'a professional requirement, not a personal choice' (p.19). In order to test their view they devised a training intervention and, as with this study, carried out pre- and post-tests to find out how effective the training had been. The result, as with this research, was very positive. Participants showed more cultural competence after completing the workshop. This study used both a self-report methodology and a behaviour-based measure. Badley's (2000) work explores just what global competence is in university teaching. He follows this up by asserting that discipline knowledge and teaching skills are not enough for globally competent teachers. In addition you need a 'transformatory' approach to education.

Amongst those realising the importance of training staff, Teekens is a front-runner, particularly in her 'Profile of the Ideal Lecturer for the International Classroom' (2000 and the development of this in 2003). She has been followed, for example, by Butt (2007) within leisure and tourism, Traversi and Fabi (1998) within Italian schools and Stone (2006) more widely within universities. These authors present projects to help teachers build up their ability to teach intercultural groups. Nash (2007) asserts that cultural competence training should be an integral part of the curriculum for staff and students.

Like Teekens, Resnick (2006) and Olson & Kroeger (2001) aim to develop very specific sets of competencies to guide teachers in teaching multinational student groups. The latter's approach uses research which comes to the same conclusions as Herzfeldt (2007) (part of the underpinnings of the theoretical framework in this paper). Olson and Kroeger (2001) found that the number of cultural experiences which teachers had had (including a second language and experience teaching overseas) increased their ability to teach to mixed international groups. A similar finding is expressed in Walker et. al. (2007), in a study which puts forward the need to develop 'moral literacy' in schools and colleges, and by Abdullahi et. al. (2007) in their study of library staff. Ziegler (2007) takes Herzfeldt and colleagues' approach one step further. She agrees that the more direct encounter with different cultures, the better, but also thinks that reflection on these experiences is essential. The implication of this is that true intercultural learning is only achieved via a solid strategy and programme, one which facilitates deep reflection. Conway (2008) concurs that effective intercultural competence training for staff must be highly interactive and Monthienvichienchai et. al (2002) adds that communication competence is essential. This is another reason why the innovative training intervention used in this research was developed.

A feature of the new approaches to teaching and learning mentioned above, and one which is central to the current study, is the need to break away from traditional learning and teaching methods, and to find new approaches and new means of expression. It was for this reason that the research in this paper is based on interventions using the arts. Bar-Shalom et. al. (2008) also identify the need to abandon old methodologies in order to develop new models and discourse. They identify the ramifications and discomfort which such approaches can bring, many of which are mirrored by the reactions of the teacher-participants in this study. Critical self-assessment and re-evaluation is clearly a necessity and a pre-cursor to effective change (Hurtado et. al., 2008; He and Cooper, 2009).

THEORETICAL FRAMEWORK

The theoretical framework which underpins this paper is based on three previous studies described below (see Table 1).

Herzfeldt (2007) investigated cultural competence amongst undergraduate students. Her research showed that the effectiveness of an individual to work in international group situations increased incrementally with the number of international or intercultural experiences that person engaged in. In summary, anyone who has studied foreign languages or has spent time studying or working abroad will be a more effective international learner than those who have never been abroad or studied another's culture. According to these criteria many students, from the UK in particular, lack cultural experience. This low cultural competency has a negative impact on group and collaborative work, and on the student and staff experience. At the very least, it is not maximizing students' learning experience. For this reason it is important to increase the opportunities for cultural experiences. This may be by making extra-curricula language tuition available, arranging study trips abroad or ensuring that students have the opportunity of experiencing the kind of innovative intervention which is the subject of this paper.

The theories underpinning Herzfeldt's study, and thus this research, is the theoretical model of cultural learning developed by Yamazaki and Kayes (2004) and based on Kolb's (1984) experiential learning. Such developmental learning increments over time, as the participants gradually learn about different cultures; getting used to varying norms and building up new forms of behaviour. This links with the second set of theories underpinning Herzfeldt's work;

that of personality (Van Oudenhoven and Van der Zee, 2002). Her research suggests that those who have more cultural experiences not only operate more effectively in intercultural situations, but also develop a greater 'multicultural personality' (specifically open mindedness and social initiative). Their ability to reflect on life in general is increased.

Importantly for this research, Herzfeldt found that UK home students showed a lower cultural competence than international students. This was due to their lower number of cultural experiences and to the UK's individualistic learning culture as compared to the communalism experienced by many overseas students (Waistell, 2009). This led to the first strand of the framework underpinning this research: the need to increase the cultural experiences of UK students.

The second strand of the theoretical framework is encapsulated in the work of Ippolito (2007), who asserts that 'deficit' models are often used to frame international students' assimilation into UK education, as identified also by Cadman (2000). There is much research on how overseas students can be 'enabled' to succeed academically in the HE environment, rather than acknowledging what such students can bring to the UK learning experience. In order to ensure that overseas students can achieve in the same way as home students we need to make our learning more inclusive. The theory which underpins Ippolito's work is that linking critical pedagogy with intercultural communications (Helmundt, 2003), which challenges assumptions that international students should merely adjust to with how learning is oriented in the UK. Furthermore, the cultural experiences of overseas students can be used to increase the cultural experience of their home-based peers in the classroom (Ward, 2001).

The natural corollary of the framework which is being built up is that, as well as finding ways which increase the intercultural capital of both home and overseas students and staff, in their separate ways, one needs to build intercultural training that is much more flexible than has traditionally been the case. (see Kember and Gow, 1991). This must be training which avoids stereotyping and which a range of participants can respond to. This is where the work of Welikala and Watkins (2008) is particularly relevant. The premise of their book is 'the concept of cultural script' (p.2), and the importance of taking into account the varying cultural scripts which learners have. Rather than the traditional view of the lecturer as the 'respected guru' (p.16), these authors suggest that peer interaction is important (p.48). Learning should be based on a set of interactions between participants who will all bring different cultural scripts. Welikala and Watkins suggest that these scripts are important learning resources rather than barriers and they use the discourse approach to intercultural learning espoused by Scollon and Scollon (1995).

Welikala and Watkins suggest that all participants can be helped to benefit each other to develop intercultural competence. This third strand of the theoretical framework brings the first and second strands together, as set out in the table below.

<i>Home students</i>	<i>Overseas students</i>	<i>All students</i>
<i>The effectiveness of an individual to work across cultural boundaries increases with the number of their international/intercultural experiences</i>	<i>It is important to challenge the deficit model of intercultural training where the UK approach is seen as the best</i>	<i>Building training on individual stories rather than stereotypes</i>
<i>Herzfeldt, 2007</i>	<i>Ippolito, 2007</i>	<i>Welikala and Watkins, 2008</i>
<i>Developmental learning theories</i>	<i>International communication theories</i>	<i>Discourse theories</i>

Table 1: Framework for developing Intercultural Awareness training

METHODOLOGY

Training intervention

Based on this theoretical framework, an innovative intervention was designed and run in 2007 in our Business School. The School looked for a practical way in which it could use the theoretical framework to increase the international/intercultural experience of its home students, help the international students to combine their learning approaches with UK-centric approaches, and ultimately devise an interactive intercultural awareness workshop which benefited everyone. Students could thus leave the University able to make a greater contribution to the international community as more effective international managers. At the same time School managers wanted to do this in a way which was innovative and inspiring because the framework suggested that reflective approaches were more effective. They wanted to follow Sanderson's (2009) advice: 'Be bold to take calculated risks in your teaching' (p.70).

The School linked with an organisation called Arts and Business that seeks to bring businesses together with the artistic community to their mutual benefit. Building from the original theoretical framework, Arts and Business and the MAP Consortium devised an intervention which would inspire and develop the intercultural team-working skills of the business school final year students. Similar work in other contexts is reviewed by Darse (2005).

Having used this approach with students, in 2008 the author integrated the same intervention into staff training. The assumption being that it would have similar effect in increasing intercultural competence and be more sustainable in the HEI's learning community.

The relationship between arts practice as a means of reaching out across cultures is well analysed in the literature (for example, Bailey and Desai, 2005; Thomas and Mulvey, 2008; Liddicoat, A.J. and Diaz, 2008). Wolf (2008) analyses the effectiveness of moving away from traditional teaching methods towards more student-centred and expressive methods of addressing culture in the classroom. She shows that such a method will help students to be evaluative and act in a culturally inclusive way. The reasons for such results are explained by Wesley (2007), and further analysed by Crichton and Scarino (2007), who emphasise the importance of interaction as the key principle in the practice and development of intercultural awareness (p.15). A theme of much of this literature is that greater cultural competence comes from active learning. Through the arts, people can learn more holistically, they have a great chance of interacting with different nationalities and cultures and are able to form connections with others more easily. 'Participating in the arts gives adults experiences, contexts, and tools to help them reexperience, revise and reconceptualize multicultural diversity in their lives and communities' (Wesley, p.13). Wright (2006 and 2007) follows this up by exploring how meaning can be recreated by engaging in creative activities with diverse cultures through individuals responding to an art form.

Surveys

The research for this paper was carried out via two mixed methodology on-line surveys with the participants on the programme; first before they undertook the training and then afterwards. Each survey incorporated some quantitative background data and some reflective qualitative responses to the intervention. This methodology was adapted as it was similar to that used by Herzfeldt (2007) and Ippolito (2007) (and also Rogers-Sirin and Sirin (2009), described in the literature review above).

The purpose of the surveys was to find out attitudes to the intercultural competence training sessions held as part of the Postgraduate Certificate. The surveys were web-based and consisted of two parts; Part One conducted before and Part Two after the residential during which the intercultural training took place. The respondents represented all disciplines of the University. Half were British, the others from three other European countries.

FINDINGS AND RESULTS

Part One: Pre-training

Eight respondents (out of a possible 12) completed the initial questionnaire prior to the training. One of the respondents chose not to answer seven open-ended questions. Four respondents described their ethnicity as White-British; three as White-Other; and one as Mixed-Other. Five respondents stated their native (first) language was English; and one each gave it as: French; Russian; and Spanish. Two respondents reported fluency in English and competence in another European language. Four respondents reported no competence in any other language and one did not answer this question. Five individuals responded affirmatively to the question as to whether they had studied or worked abroad. Two of them had student experience and one respondent reported both student and working experience. The remaining two described their international work experience.

The survey dealt with the respondents' expectations of the intercultural training part of the Postgraduate Certificate. It is worth summarising their responses in some detail:

- 'I'd hope some very specific examples - I prefer to learn from situational items, preferring to hear how another person dealt with it. I'm hoping it won't be a lot of hand waving and generalising statements.'
- 'I am hoping this training will help provide me some guidance to deal with issues as part of my teaching as home students often report difficulties to work with international students.'
- 'Not sure. I'm firmly against communalism and believe individuals should be treated as individuals. They should not be treated as part of some larger block or community, and be assumed to hold to certain ideals that other may ascribe/or push on their "group" or "community". On the other hand, it is clear that there are different cultural backgrounds, and that responses to students should take account of these differences.'
- 'To broaden my research into other cultural areas, to find new sources of materials for my teaching and research, to enrich my personal view of the Higher Education environment.'
- 'Fuller understanding of cultural differences and their effect on the learning process.'
- 'Improved understanding of and communication with people from different cultures. An ability to bridge cultural differences between students, help them feel fully included in the study group regardless of ethnic background and learn with equal effectiveness within the same environment.'
- 'An understanding of where different cultures require different teaching approaches'.

In summary, the findings of the pre-training survey show that the participants were apprehensive at the kind of intercultural training they might be going to experience. Many of them were looking for some very specific examples of situations where intercultural awareness

was important and practical suggestions on how to handle these situations. All of them hoped that there would not be a lot of "hand waving and generalising statements".

After the training session the same eight participants completed a questionnaire giving their opinions on their experience

Part Two: Post-training

Participants were asked what they had been expecting to get out of the intercultural training. Again, it is worth quoting some responses to show the degree to which the intervention had moved them from their original position. It is noted that the language used here is highly reflective of the training which had been delivered.

- 'Ability to bridge cultural gaps between the students, enabling them to learn with equal effectiveness.'
- 'Some ideas as to how to avoid any cultural difficulties when teaching.'
- 'I was expecting to improve my ability to deal with diverse groups of students (i.e. international students, EU students, diversity within UK students).'
- 'Post-modern all cultures are equal multiculturalism that tries to force people into stereotypical cultural boxes, rather than respecting their individuality and right not be confined by the culture they grew up in.'
- 'Improved teaching and learning skills.'
- 'Understanding of how to work better with students of different nationalities. Is there a difference in the way they learn?'
- 'Better ability to interact with international students and colleagues both with respect to relational outcomes and professional achievements.'

When asked what they thought was the best aspect of the intercultural training, the participants offered the following. Again, to give a flavour of the actual responses some are quoted in full.

- 'Demonstration that culture had so many aspects, increase in confidence.'
- 'The perception exercise forced me to consider how my background and experience moulded the way I see things.'
- Meeting others on the course.'
- 'I think the best aspect of the training was the way we were all involved in exercises which highlighted intercultural differences within the group. I also believe that the fact that the training was held off site helped build a close community of learning.'
- 'The fact it did not live up to what I was expecting, and instead focused on people as individuals and how one could adapt one's responses to an individual. The challenging nature of the training. The introspection it led to.'
- 'Meeting new members of staff. New ideas on delivering high quality teaching.'
- 'The freedom with which we could express and share our thoughts with other participants.'

The answers to the question on the worst aspect of the training varied from the physical: ('Sitting on the floor'; 'The human sculpture exercise took me way outside my comfort zone') to

content-related ones ('I think some aspects of the training may not be applicable in some situations i.e. they may be easier to apply with small groups than in very large groups i.e. 200 students').

All respondents felt they learnt skills they will use in the future, and then described why:

- 'The training encouraged deep reflection on the nature of cultural diversity and its effects on learning and teaching experience.'
- 'I will always question what I think I am seeing in future'.
- 'I believe that the training will help me communicate with intercultural students and will also help me realize the variety of student needs.'
- 'I just think it made me more open to empathising with others and examining my own views.'
- 'New engaging and dynamic teaching approach.'
- 'I started thinking about questions discussed within the session.'
- 'One for all, being better able to understand how the same notion of cultural issue is perceived by people from different cultures.'

When asked in what way the training made them rethink their approach to teaching, the following replies were forthcoming.

- 'It demonstrated importance and fun of group work, divergent teaching and learning expectations (often dependant on cultural perspective). I was more determined to find out about my students and was more convinced in importance of feedback.'
- 'The training helped me think 'outside the box' and consider innovative methods of teaching.'
- 'Take note of the intercultural diversity among the group.'

Next, the survey focused on what aspects of the training respondents thought would be useful in their careers. Whilst two respondents thought there would be no useful aspects, a further two valued the newly-established peer links ('Bonds with colleagues established during the training. Increased confidence in interaction'; 'I've met new colleagues and happy to collaborate with them in the future'.) Two respondents thought their teaching was to benefit: ('Anything related to improving my teaching skills will certainly help in my future academic career'; 'Awareness of the importance of culture for teaching'). One respondent stated the useful aspect was introspection.

Two questions dealt with the possible applications of the training in the future. The first one was concerned with how the training will be used in teaching. Two respondents were not sure. Two respondents were planning to focus on visual aids. The remaining four offered following answers:

- 'Ask for and give feedback, introduce more interaction and debate.'
- 'I will consider introducing new learning and teaching styles in my future teaching.'
- 'will help me to find a way how to encourage/persuade students to work in groups'.
- 'include reflections on cultural issues when preparing materials and lectures, and when designing evaluations.'

When asked to make suggestions for the future with regards to intercultural training, the following was reported:

- 'Undertake case studies illustrating where cultural issues have caused problems in the classroom, and how these could have been avoided or overcome.'
- 'More relevant subjects, experience and dealing with problems due to cultural differences.'
- 'Don't turn it into training about race and religion Keep it about responding to individuals and their needs, and respecting them as people not stereotypes.'
- 'More practical suggestions so to give to students.'
- 'State the objectives better. Make people more aware of what they are doing and why: self-reflection is ok but takes time to be effective.'

All participants expressed surprise at the highly participative manner of the training, but many of them were pleased with the outcome. The most strongly expressed view was that they had enjoyed the involvement in the exercises (although they expressed discomfort at the physicality of the event), and that it helped build up a close shared community between the participants. (This was evidence that the participants were living the theoretical framework.) Most importantly, the training appeared to have opened up the participants' minds and outlook and they praised 'the freedom with which we could express and share our thoughts with other participants.'

CONCLUSIONS

This paper successfully brings together for the first time a research-informed model for intercultural learning for home and overseas students with sustainable proposals to embed this in the curriculum via teacher training. The findings show that participants had learnt important intercultural skills which they will be able to use in the classroom. This effectiveness was due to the design of the training which took account of the differing, complex but inclusive, learning styles identified in the theoretical framework. The nature of the training via artist practitioners appears to have encouraged reflection on the nature of cultural diversity, and participants attested to the effects that this was going to have on their learning and teaching practice. It could be suggested, as it has been by Ladson-Billings (1995), that these approaches share the features you would expect from any good teacher – active learning which seeks to maximise and respect the approaches of all learners and which encourages them to be reflective, taking responsibility of their own learning and that of their colleagues (individually and communally).

The findings clearly replicate a number of key features of effective intercultural learning identified as important in other studies referred to both in the literature review and theoretical framework. These include the discomfort which is likely to be experienced by the participants (He and Cooper, 2009) and the need to help participants over this on the basis that it leads to greater learning. They also include the ability to create a learning space where connections can be formed (Wesley, 2007), peer interactions increased and cultural experiences incremented. The openness clearly created by the training reflects the ethnographic approaches to cultural learning which Bradley (2000) advocates, which creates openness and allows participants not just to call upon the intellect but to absorb themselves in until the familiar is strange and the strange is familiar (p.248).

IMPLICATIONS AND FURTHER WORK

The implications of this work are most immediate in the design of intercultural training and the framework developed could be used in a number of different pedagogic and work-based contexts. Indeed, the author has already used it to design innovative training for students and board room level managers. In both cases the same far-reaching results have been achieved.

Despite the findings clearly replicating much of the literature. There are many limitations to this study, particularly arising from the methodology. The sample was small and the surveys did not use a recognised instrument of measurable items. It would be useful to reproduce the work, this time using both a self-report tool and behaviour-based measure, for example that of Rogers-Sirin and Sirin (2009). This would make the findings more generalisable. In spite of this, the robustness of the theoretical framework and its effect on practice is clear.

As Harman (2005) said, this area is very under-developed and is in need of investment. The implications are also important for policy makers and senior university managers, whose support, as Dunne says 'in the form of budgetary resources to fund staff training, is imperative if meaningful curricular transformation is to be realised' (2009, p.33). Having seen the results, the institution has decided to continue to include the training in its Postgraduate Certificate. This is a notable commitment to embedding intercultural learning across the institution which others should follow.

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KNOWLEDGE CONSTRUCTION WITHIN THE AEROSPACE CONTEXT

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This paper attempts to examine how knowledge is constructed within the workgroup environment of a large North American aerospace company.

Group member interactions within the firm had been evaluated across an ethnographic case study approach involving direct observations and interviews, whereby qualitative empirical results were interpreted and analysed across discourse analysis for emergent categories.

A dialogical model is proposed describing both verbal and non-verbal interactions between group members leading towards knowledge complexification.

This single case study prevents us from generalising the findings across the entire firm in question; and by extension, any manner of external validity outside of the firm's context. Additional workgroups/teams within the firm need to be evaluated; while similar studies in other institutions within the knowledge economy are to be envisaged.

The practical implications to this work suggests that workgroup managers must nurture an environment conducive towards mutual trust and respect, where individuals are given the time and freedom to express themselves all the while being open to differing viewpoints and experiences.

This paper presents the 'how' and 'why' of an effective knowledge complexifying dialogical process occurring at the interpersonal level.

Keywords: Knowledge construction, ambiguity, boundary constructions, risk induction

INTRODUCTION

Organisations can be fertile grounds for the knowledge they possess as well as create. Furthermore, knowledge creation leading towards enriched or complexified knowledge can be viewed as having both a 'defensive' and 'offensive' role within organizations: 'defensive' in that it is primordial in terms of trouble-shooting, problem solving and avoiding deleterious consequences (for example, Weick (2001) speaks of "simplications produce blind spots..." and "...with more differentiation comes a richer and more varied picture of potential consequences"); and 'offensive' in that it is essential for product and service innovation (Nonaka and Takeuchi, 2004).

Our own simplistic starting point begins with the individual within the workgroup environment on the basis that: a) organizational knowledge creation and organisational sense-making begins with the individual (Nonaka and Takeuchi, 2004; Weick, 1995); and b) the workgroup is a constitutive and fundamental entity within the organization for understanding social phenomena (Enriquez, 1992). More specifically, this paper, across an ethnographic case study, proposes a dialogical model describing both verbal and non-verbal interactions between group members leading towards knowledge complexification.

A FEW WORDS ON KNOWLEDGE

Knowledge is seen as occupying a central place in contemporary modern societies. Yet numerous equivocal concepts have resulted in a range of definitions. Some have come to see it as being divisible into two broad categories: namely, representational and anti-representational knowledge (Kakihara and Sørensen, 2002; Von Krogh and Roos, 1996). The representational view sees knowledge as being a representation of a pre-given world with these representations resulting from human cognition (Kakihara and Sørensen, 2002), where cognition in this case

consists of purely 'rational'/logical dimensions. Such knowledge, being universal and codifiable, is seen as being storable and easily transferable in a controlled manner between individuals and organizations in formal and systematic manners (Szulanski, 2000).

The anti-representational view sees knowledge as interpretation, as relationship and as process (Kakihara, and Sørensen, 2002):

1. Knowledge as interpretation emphasises the tacit and personal subjective aspects of knowledge that is hard to formalise and hard to communicate, share or transfer.
2. Knowledge as relationships emphasises that knowledge is intrinsically relational to its surrounding world. Knowledge is a result of human mental acts, be it individual, group or social, and those acts are interdependent on various socio-cultural contexts.
3. Knowledge as process emphasises the dynamic and fluid aspects of knowledge, emerging from the interaction between subjectivity (e.g. beliefs, emotions, etc.) and objectivity ('truth'). Furthermore, knowledge is seen as a non-static entity resulting from the process of 'knowing' by which human beings make sense of the world.

Furthermore, the knowledge taxonomy of non-representational vs representational can be transposed into an alternative taxonomy of tacit vs explicit knowledge (Nonaka and Takeuchi, 2004). Explicit knowledge covers all of the representational view of knowledge, but also overlaps onto anti-representational dimensions. These latter dimensions cover the very nature of the interpretative/contextual semantic aspect of language such as interpretative ethnographic texts (Geertz, 1998), text as discourse and fiction (Van Mannen, 1988), etc. Tacit knowledge on the other hand is solely non-representational in nature, which Takeuchi (2001: 319) divides into 'technical' and 'cognitive' aspects: the former being related to "informal and hard-to-pin-down skills and crafts" as well as "subjective and personal insights, intuitions, hunches and inspirations derived from bodily experience"; and the latter being related to "beliefs, perceptions, ideals, values, emotions and mental models so ingrained in us that we take them for granted...yet shapes the way we perceive the world around us".

Beyond the tacit/explicit categorisation, other authors have proposed additional 'types', such as Scharmer's (2001) 'self-transcending' knowledge typically associated with artists with their "ability to sense the presence of potential; to see what does not yet exist" (2001: 68).

Our 'knowledge of knowledge' is a continuously emerging field integrating various contrapositions (e.g. representational vs anti-representational knowledge (Kakihara and Sørensen, 2002); or tacit vs explicit knowledge (Nonaka *et al*, 2004)), where "knowledge is created in the spiral that goes through pairs of seemingly antithetical concepts such as order and chaos, micro and macro, part and whole...tacit and explicit, self and other, deduction and induction..." (Nonaka *et al*, 2001: 14). In essence, knowledge and its creation have an infinite range of ambiguous¹²² or antithetical concepts to tap from as knowledge expands ontologically from the individual to Society (Nonaka and Takeuchi, 2004). Hence knowledge can be seen as a *synthesis of constantly emerging polysemic antithetical concepts*. This position is also congruent with Weick's (2001: 60 and 167) argument that with "diverse views", "ambivalence" and "...more differentiation comes a richer and more varied picture of potential consequences"; and that constancy of ambivalence ensures required organizational flexibility and resilience, since it

¹²² Here we adhere to Weick's (1995) definition of ambiguity as being actions, ideas or concepts that are contradictory or "capable of being understood in two or more possible senses..." as opposed to a second definition of ambiguity which often refers to "obscurity" (Webster's Collegiate).

generates necessary re-adjustments to preceding actions, which if left unchecked can lead to significant consequences.

The Individual and the Workgroup as an Ontological 'Starting Point'

Our own starting point as to which ontological level ambiguity, contradiction or equivocal points of views are first integrated is at the level of the individual (Nonaka and Takeuchi, 2004; Weick, 1995). Furthermore, we are also interested in examining the individual within the context of a workgroup environment. According to Enriquez (1992: 97 and 101), "the group constitutes the privileged location for the comprehension of collective phenomena", in which the "group only establishes itself around an action to accomplish, a project to work on or a task to complete". Group members interact with one another whereby "communication is often viewed as the central process of the group" (Levi, 2007: 4). Keeping in mind that communication across dialogue is, according to Nonaka et al (2004), a prime mechanism for the sharing, conversion and creation of organisational knowledge, it is therefore at the level of the workgroup that we first ask ourselves how and to what degree ambiguity is integrated.

RESEARCH AIM AND METHODOLOGY

This research sought to determine how knowledge is constructed within a large North American high-tech firm. Towards this end, our intent was to study one or more work groups within a given firm. More specifically, we wanted to observe the interactions and dynamics both within a given group and across its boundaries.

Field site

The research site, given the pseudonym, NorAm Aircraft Engines, is an aircraft engine manufacturer which employs over 4000 people world-wide. Preliminary discussions with a first workgroup (the Engine Operability Development or EOD group) not only confirmed their interest and acceptance to participate, but were involved in regular bi-weekly meetings with another work group that had not been initially identified (the Engine Component Rig Testing or ECRT group). This second workgroup was also approached, and accepted to participate in the study.

The EOD and ECRT Workgroups

The EOD group is responsible for ensuring the development of adequate engine operability *envelopes* throughout all phases of engine development programs. The proper establishment of the engine operability envelope is of critical importance, in that it delimits the boundaries beyond which the aircraft risks running into critical compressor surges or other types of catastrophic engine failures. EOD group members have a good general understanding of the various engineering disciplines involved in engine design and development. A principal objective of the EOD group is to ensure meaningful engine component test data is generated. Establishing the type of engine test data to be generated is negotiated between the EOD group, the various engineering specialty groups, and the ECRT group; the latter being responsible for the generating and integrity of the required engine component test data. In turn, the ECRT group's responsibilities include the development and preparation of component test rigs (required for each new engine development program), their subsequent test runs, and the

proper collection of the test data. Both groups interact with each other daily (informal) and also meet bi-weekly.

Data collection

A qualitative ethnographic case study approach was adopted using direct non-participatory observations and interviews. Observation notes were complemented with digital recordings of on-going interactions between individuals. Interviews were either semi-structured or ad hoc in nature.

Within this perspective, it was especially important to be vigilant for 'emergent' categories, and hence borrowed from Schwartzmann's (1993:47-72) ethnographic studies in organisations involving a dialogical inductive-deductive process between empirical evidence and theoretical elaboration across thick descriptive writing. Although ethnography is typically reserved for larger cultural systems, and case studies to bounded systems or "units" (Cresswell, 1998: 66), the synthesis of the two approaches has often been adopted across *ethnographic case studies* (Prosser, 1995; Beaulieu, Scharnhorst and Wouters, 2007).

The primary unit of analysis for our study consisted of the bi-weekly inter-group meetings between the EOD and ECRT workgroups. The period of time investigated was from early February 2007 till early May 2007.

The research design criteria were based on *trustworthiness* (Lincoln and Guba, 1985) and *reliability* (Yin, 2003) across rigorous data collection as per Spradley (1980).

Data Analysis

Descriptive data from observations and interviews were manually analysed and interpreted in a separate journal as per Spradley (1980). The nature of the data that was collected (digital recordings and hand-written observations) allowed us in many cases to analyze for *cues*. These cues being both verbal and non-verbal in nature, were essentially in-line with the more recent streams of discourse analysis, whereby non-verbal aspects (e.g. voice tonality, facial expressions, body language, etc.) bring forth important contextual information (Dickey *et al*, 2007).

RESULTS: THE BI-WEEKLY INTER-GROUP MEETINGS

My first and lasting impression upon assisting the bi-weekly inter-group meetings between EOD and ECRT was of a high degree of camaraderie within each group as well as between both groups; extending itself between the two group managers (Gerry and Frank).

The meetings themselves lasted anywhere between 40 to 60 minutes. With time, we were able to confirm within each meeting the existence of three chronological periods which seemed to naturally flow from one to the other; namely, the pre-agenda, the 'formal' agenda and the post-agenda meeting periods.

The pre-agenda period consisted of the initial 5-10 minutes of each meeting. During this period members would either joke and cajole one another; informally discuss technical issues that were not necessarily part of the formal agenda; or simply converse on various social topics (little league hockey, house renovations, car problems, etc.). On other occasions, members discussed specific technical issues related to joint project activities. This was often accompanied by the act of sketching a particular view of a rig or engine component that one member was trying to describe, justify or clarify. Throughout such conversations sketches were often drawn and modified in successive superimposing steps by each of the interacting members before

finally converging towards a mutually agreed 'version'. During this process, active sense-making was observed, whereby various cues indicating understanding, questioning or disagreement were easily discerned across words such as "Yep", "Oh really? I thought the chamfer had a smoother profile than that..." and "No, the airfoil cooling hole needs to be drilled at 45 degrees...". Similar types of sense-making also occurred with the use of pre-existing 2D drawing cross-sections. Here, existing blue-prints were typically modified (via successive iterations between interacting members) with pen/pencil to explain one's existing perspective (perspective-giving), understand someone else's perspective (perspective-taking) or construct new perspectives (perspective-making).

The 'formal' agenda period was always initiated by Gerry's (the EOD manager) calling out the first agenda item on the agenda sheet. The agenda sheet consisted of a series of one or two-line descriptions identifying the development engine model/test rig combination in question, the principle tasks being monitored, a completion target date for each of these tasks, and the current status of the task in question. Most members had a copy of the status sheet, while those who had forgotten it were familiar with the tasks they needed to report on (while occasionally looking at their neighbour's copy). Gerry's kick-off words such as "QA510/Gas Generator?" would prompt a response by one of the attending members. Such responses, rather than simply 'closing' the agenda item often triggered comments, inputs or questions from other members. The following example shows how such an item called out by Gerry triggers an initial status description, which is then followed by subsequent discursive dialogue amongst the various meeting members:

Gerry: "Ok. QA 720/inlet distortion test?"

Jon: "The plenum is now at the Manufacturing Development Shop and they should be able to have a look at it by this Friday – they said they'll be able to install new pads for the two new additional 'rakes'; and they'll be able to respect the distances...Its just that with those walls the spaces aren't the same anymore...we get a larger gap (uses hand/arm movement to represent the distance)

Lloyd: "Yep. One is like this and the other is like that (uses hand and arm movement to show two different space distances)"

Jon: "Ya, that's it...I managed to get some measurements on the shrouds this morning, so now we'll be able to re-assemble everything. When they disassembled the shroud section they saw that the capacity probe filters were broken; but we don't think we'll need them for the upcoming tests..."

Ian (who is not involved in the project): "That's what they figure we don't need anymore".

Jon: "And they didn't need to bolt anything down..."

Frank: "So that means it's been passing by the holes"

Despite the 'formal' agenda listing and monitoring of various items of activities related to various rig testing projects, discussions were more often than not discursive/digressive in nature and involved a good dose of humour and socialisation.

And finally, the subsequent post-agenda period of discussions seemed like an organic or blurry extension to this 'formal' period, typically involving a discursive continuation of the final agenda topic. These periods varied anywhere between 5-10 minutes within the meeting room, but could go as much as 20 minutes or more as people often decided to 'airlift' the meeting towards the nearby ECRT workgroup area.

ANALYSIS AND INTERPRETATION OF RESULTS

Various categories were discerned within the inter-group meeting context. The following subsections discuss the five main categories identified.

Narratives

Very often perspectives that were transmitted between members across all three periods of the morning inter-group meetings, were done so in the form of narratives. Here, we define the narrative form as being concerned with the temporal ordering of events, ideas and actions with a focus on “their sequential patterning, their duration and pace, their context and the role of actors” (Holman, 2000: 965). Moreover, narratives were discerned across *all* of the inter-group meetings which had been digitally recorded (10 meetings). Narrations were used as part of overall descriptive explanations given by various members to either assure others that actions had been taken, justify one’s own position, report on progress in relation to a specific activity, provide background information to the meeting audience in general or simply to present old knowledge in an entertaining fashion.

The following is an example of story-telling by Ian as he describes the status of an activity:

Ian: *“Helen came to see me yesterday and mentioned ‘This’ll be way too complicated to try and make an evaluation, and so on’...And then the union got involved by saying ‘No. The noise level is way too high. It’s out of the question people work under these conditions.’ I was a bit pissed-off in that ‘Hey! What’s the big deal? Everyone’s using earmuff’s no?’...”*

The numerous examples of narratives bring up the notion of a more general category of *perspective-giving*. But it does bring up the notion of a more general category of *perspective-giving*. Boland and Tenkasi (1995: 357) speak of narratives as being inherent to the process they refer to as “perspective-making”; but this is in relation to the individual actually generating the narrative. Yet, as Dickey *et al* (2007: 50) recently remind us in their own literature review, perspective-making, when articulated towards another individual, involves “the objective...to induce a perspective” towards this very individual known as “perspective giving or perspective setting”.

Perspective-Giving

All the above examples of narration or story-telling can be included within the more general category of perspective-giving. But many more examples of non-narrative forms of perspective-giving were observed; and constituted a major form of exchange in perspectives between the meeting members throughout all of the meetings that were attended. Here we define the non-narrative form as “being concerned with non-temporal patterns such as relationships between propositions, argumentation, descriptions, ideas and evaluations” (Holman, 2000: 965).

One example of non-narrative perspective-giving shows Gerry giving a pedagogical-like explanation to Frank and the rest of the members as to why the company takes four repeated test measurements:

Gerry: *“The reason why we take four measurements is because if ever there’s a problem you’ll see it right away...”*

Frank (interjects in agreement): *“Oh, ok ya...”*

René (agrees): *“Yep.”*

Perspective-Taking

All examples of perspective-giving would have us ask whether or not these perspectives were actually being 'taken in' by the listening members. When we refer to perspective-taking, we are not speaking of agreement on the part of the listening interlocutor but simply that he has taken the other's point of view into account before making up or readjusting his own perspective (Boland and Tenkasi, 1995; Holman, 2000).

Sufficient cues were seen and/or heard to indicate that perspective-taking was predominant across all of the inter-group meetings attended.

One example is during a technical discussion between Lloyd and Jon, in which we see Lloyd's perspective being given, and in turn, Jon taking in this perspective as seen across explicit verbal cues:

Lloyd: *"There's one part missing that's still at Assembly; it's just that Daniel Filion wants to have two inspection points taken"*

Jon (following Lloyd's words): *"...Ok..."*

Lloyd: *"The part left on the 170 truck instead of returning back to me..."*

Jon (in surprised empathy): *"Oh !"*

Revision of Perspectives

Dialogue between members within the inter-group meeting environment, where perspective-giving and perspective-taking were in constant interaction, led to perspectives being continually revised; thus echoing Dickey *et al's* (2007: 49) words, that "the ability to change perspective allows individuals to communicate with a multiplicity of partners who hold a wide variety of perspectives". It often appeared in the form of partial discreditations whereby an individual's assumption, belief or practice could be self-perceived to contain both a certain degree of pertinence while also needing to be modified in the face of another's input. At other times, we could discern an individual's *tentative* self-discreditation in the face of the other's input, reminding us of Weick's (2001) 'healthy doubt'. On occasion, a 'full' or 'complete' self-discreditation of an individual's retained assumption seemed to occur in parallel to the formation of a new perspective as a result of someone else's input.

Examples of revisions observed throughout the inter-group meetings, were easily discerned across cues such as "Oh ok, now I see what you mean" and "All along I was thinking it was doing...Now I get it."

The following example between Ian and Frank in regards to Frank's proposed idea of conducting a physical polishing in lieu of a chemical treatment (on Ian's plexiglass component) shows Ian gradually (and tentatively) revising his own prior belief that doing a physical polishing would take too much time:

Ian: *"I'm not sure if we can dip it in acid or something...just to 'melt' the surface"*

Frank: *"But you can polish it physically. It goes pretty fast..."*

Ian: *"Really?"*

Frank (turns to Lloyd): *"When you do the polishing it goes pretty fast, no?"*

Lloyd (agrees with Frank): *"Yep, it's pretty fast"*

Frank: *"They start by rubbing it ..."*

Lloyd: *"After the wet scrub"*

Ian (in a pondering tone as he parrots Lloyd): “*After the wet scrub...*”

‘Dynamic/Static Boundary Objects’ as Boundary Constructions

The different types of mediums used in *helping* to transmit perspectives within the various intergroup meeting interactions that went beyond verbal articulation included the agenda sheet, active sketching from scratch, sketching to modify existing 2-D drawings and existing 2-D drawings themselves. Some of these ‘objects’ in their static forms such as the existing 2-D drawings could be classified as repositories (Star and Griesemer, 1989). And although Bødker (1998) acknowledges the activity or mediation that occurs around most of these ‘objects’, they are nevertheless viewed as static representations. Yet in our case, all of the listed ‘objects’ were not only accompanied with some form of visible action on the part of actors, but that it was *during* the dynamic yet transient modifications of these ‘objects’ by these very same actions that perspectives were both given and taken. In our case study, the agenda sheet was actively modified across Gerry’s handwriting, as the discussions advanced from one item to the next. And in conjunction to this dynamic re-construction of the ‘object’ was the updating of everyone’s perspective of the topic at hand – i.e. we are looking at both imaginary/mental as well as physical de-constructions and re-constructions occurring in tandem.

The active process of sketching and re-sketching was found (across ad hoc interviews) to be a much more meaningful process for the participants as opposed to simply looking at the end-resultant sketch or construct. For example, in portraying gas flows within an engine combustion chamber, if the same explanatory words were used in the absence of specific motions and line drawing movements, one would have a less clear sense of the phenomena being articulated.

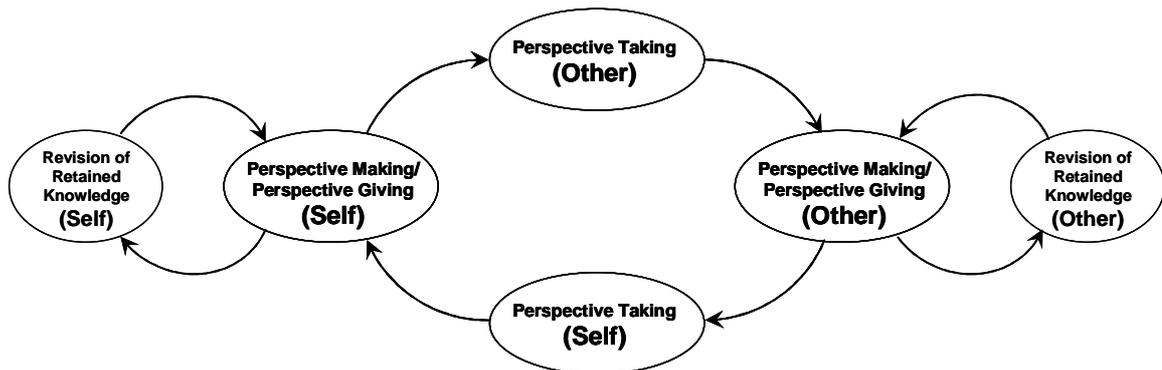
In all of these cases, we are looking at physical boundary objects being continually constructed and re-constructed by the subject-actors. Hence, we can speak of *boundary constructions*. Even 2D drawings without any visible line markings or modifications added to them, were always accompanied by finger movements across various features and physical phenomena the interlocutor wanted to bring a mental attention to (e.g. gas flows, stress distributions, a hole diameter, etc.). This created new mental bracketings (Weick, 1995), necessary for constructing new mental representations within the minds of the various interacting members.

KNOWLEDGE CONSTRUCTION ACROSS DIALOGUE

Based on the five categories observed within the inter-group meeting context, we now propose a dialogical model on how knowledge seemed to be constructed. Firstly, our analysis showed the two strong emergent categories of perspective-giving and perspective-taking to be complementary processes allowing interlocutors attain a “shared understandings” (Boland and Tenkasi, 1995; Dickey *et al*, 2007). A relatively clear transmission of a perspective not only clarifies a perspective in the sender’s mind (hence perspective-giving = perspective-making (Boland and Tenkasi, 1995; Dickey *et al*, 2007)), but is also the first step towards providing the *potential* for the receiver to take in the sender’s perspective. That is not to say perspective-taking is an automatic process as a result of the sender’s perspective-giving. Taking in the other’s point of view, as Mead (1934) explained, involves “taking the attitude of the other” and of being fully human by maintaining “an inner conversation with a generalised other”. Furthermore, “communication is unsuccessful when neither party manages to mentally ‘step into the other’s shoes’, to be non-ego-centric” (Schober, 1998: 142). Seen within the inter-group meeting environment was a continuous cycle of immediate reciprocity between the listener-become-speaker and the speaker-become-listener. Perspective-giving was received by perspective

taking, or in a more layman’s term, ‘active listening’. This leads us towards a basic ‘perspective coordination’ between two interlocutors named ‘Self’ and ‘Other’ (central ‘loop’ in figure 1).

Closely associated to the perspective giving/perspective taking process was what appeared to be the revision of perspectives in line with Krauss and Fussell (1991: 2), whereby each member’s perspective within the inter-group meeting was periodically being revised in terms of retained knowledge (as beliefs, opinions, practice, etc.). This revision of retained knowledge occurs as a result of the perspective-making process (reciprocal loop seen on both the left and right hand side of figure 1). In turn, a newly revised perspective retained by a member will also have an



influence on the subsequent incoming perspective being taken in by this same member.

Figure 1: Perspective coordination process between Self and Other.

Finally, figure 2 shows the incorporation of boundary constructions into our previous figure. Perspective-making/giving by the Self can involve the aid of a boundary construction, which in turn is taken in (perspective-taking) by the Other. On the other hand, it is quite possible that it may not involve the aid of a boundary construction (for example, communication purely via verbal articulation) in which case perspective-making/giving bypasses the boundary construction step and is directly taken in (perspective-taking) by the Other. In turn, the Other changes roles from a perspective-taker to a perspective-maker/giver and once again begins the same process.

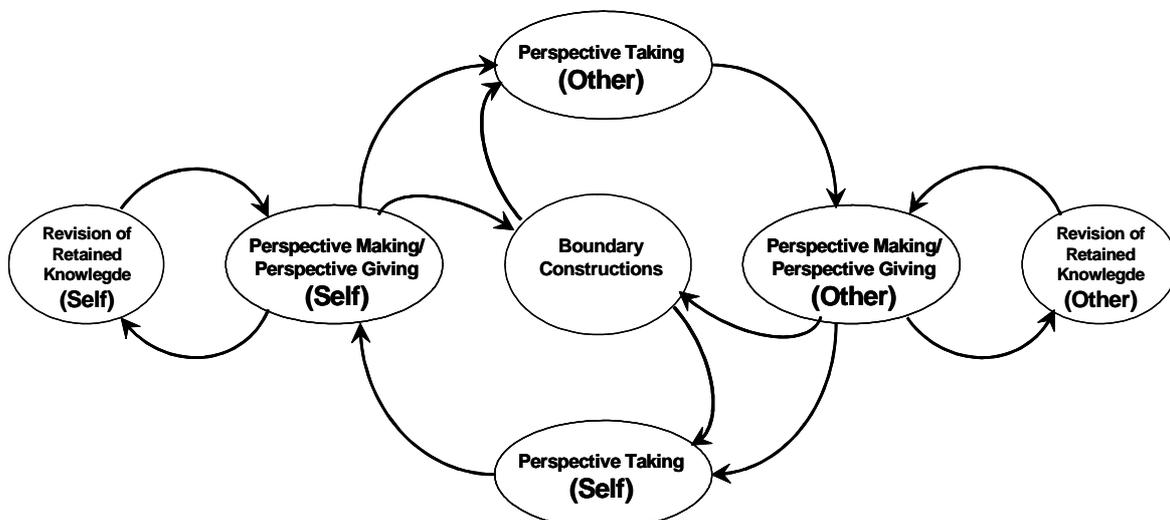


Figure 2: Perspective coordination process between Self and Other incorporating the revision of retained knowledge and boundary constructions.

Knowledge Complexification as Openness to Antithetical Concepts

As argued throughout section 2, dynamic interaction between complementary oppositions, ambiguities or antithetical concepts is an essential 'feedstock' towards knowledge complexification. In this sense, numerous dynamic contradictions were seen at work leading towards the expression and transmission of enriched individual perspectives.

One antithetical dyad at work was the co-existence, interaction and conversion of tacit and explicit knowledge. Explicit knowledge was articulated verbally (as perspective-giving) often in the form of metaphors, analogies and stories, thereby confirming Nonaka et al's (1995: 64) externalisation (tacit to explicit conversion) at work, whereby individuals use their discursive consciousness towards articulating interactive dialogue. Furthermore, perspective-taking involved the taking in of others' perspectives which often implied the beginning of learning-by-listening to others' narratives, whereby members feel the realism and essence of the story that took place so as to convert it into a tacit mental model (Nonaka *et al*, 2004: 64). And finally, when we look closer at the boundary construction aspect of the perspective coordination process, again we can see both explicit codified aspects (existing 2-D drawings, agenda sheet, etc.) as well as more tacit ephemeral aspects, such as hand drawing movements in themselves (which impart a film-like quality); and in this sense transmits a certain degree of tacit knowledge to the perspective-taker. The exact manner in which explicit and tacit knowledge fit into the dialogical model shown in Figure 3 will be the subject of further studies and analysis.

Other antithetical dyads at work included dialogue vs action as seen across the perspective making complemented by the boundary construction process. In this way, as per Nonaka, Toyama and Konno (2001: 14 and 16), it provides the basis (in dialectical fashion) for further ambiguities or complementary oppositions to interact together, which in turn, further reinforces the tacit/explicit dyad and its respective conversions.

One interesting antithetical dyad within the inter-group meeting was seen across the complementary strengths of both groups. The Special Test group seemed more centred towards technical and practical hands-on knowledge of the test rig's capabilities and running. Hence, between the two groups we have a strong combination of practical-technical 'how to' and theoretical 'why' knowledge which interacted, transformed, entrained and complexified one another.

Another antithetical dyad could be seen across the relative knowledge balance between younger and older members within the meeting room. Often, the older members provided ways in which to solve problems (or avoid them altogether) based on their experience and/or the network of contacts they had amassed over the years. The younger members, on the other hand, tended to be stronger within the realms of information technologies as well as having stronger competencies for numerical modelling activities.

Finally, there was a more basic and primary ambiguity or contradiction at work within the inter-group dynamics which can be directly attributed to the predominance of perspective-taking on the one hand, and perspective-giving on the other: namely the ontological dyad of the individual (as seen across emancipation of self via self-expression (or perspective-giving)) vs the more collective desire of identity towards the other (as seen across genuine listening that attempts to 'put oneself in another's shoes' (or perspective-taking)). Here we can speak of balanced or, as Enriquez (1992) terms it, "differentiated" group dynamics. In turn, this allowed for secondary knowledge-rich antithetical dyads described above (e.g. tacit vs explicit

knowledge, older vs newer knowledge, practical vs theoretical knowledge) to be actively integrated so as to continuously complexify the knowledge being exchanged.

Figure 3 shows a schematic of the numerous specific secondary knowledge rich ambiguities specified in previous paragraphs, in a dialectical relationship of mutual reinforcement with the primary ontological ambiguity. The primary ambiguity of 'emancipation of self' vs 'identity towards the other' allows for specific knowledge-rich secondary ambiguities to be expressed and integrated within the dialogical perspective coordination process (shown in detail in previous figure 2); The expression or integration of these secondary ambiguities also reinforces the primary ontological ambiguity; and in turn, results in an open dialogue results whereby, individuals are open to others' viewpoints as well as towards revision of their own retained knowledge; all of this resulting in knowledge being continuously complexified and shared.

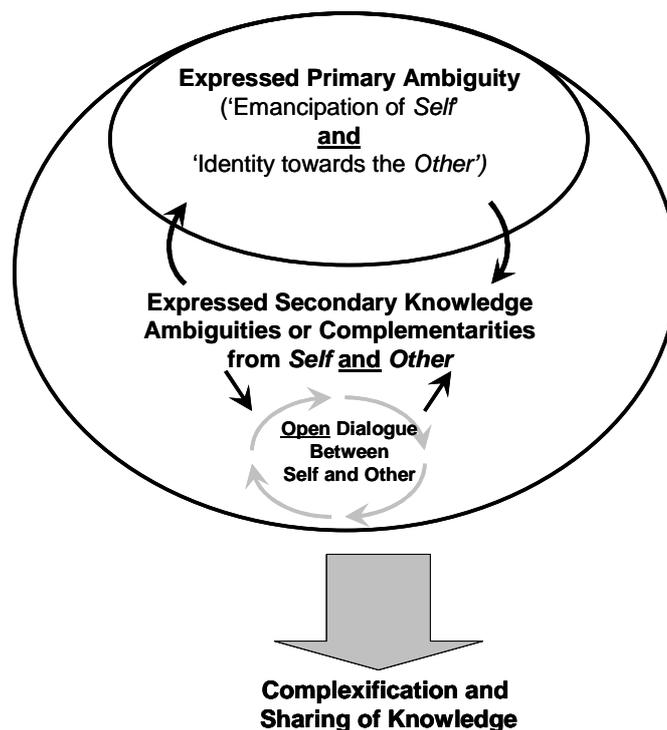


Figure 3: Expression of the primary ontological and secondary knowledge ambiguities (in dialectical reinforcement) within the dialogue process; leading to knowledge complexification.

POSSIBLE IMPLICATIONS FOR MANAGEMENT

What is the role of management in all of this? We realise that further studies across many more workgroups are required in order to fully answer this question. Nevertheless, certain preliminary indications detected across the actions and words of the managers from both workgroups seemed to point towards the importance of developing a sense of self-confidence amongst the members. Furthermore, as one manager explained (Frank), this self-confidence can be gradually developed with time by providing a psychological "safety net", whereby people feel comfortable in learning and trying new ideas. This seems to be in agreement with Edmonson's (1999: 351) and Bogenrieder and Nooteboom's (2004: 293-294) arguments that psychological safety nets provide a shared belief amongst the members that the group "is safe for interpersonal risk-taking" and thereby encourages the willingness to learn, share and create new knowledge; and that the lack of such a "safety net" can often drive members towards an

individualistic survival mode, whereby members hold back critical knowledge from one another.

Another (yet related) possible management implication towards achieving a knowledge-complexifying dialogue is *patience*. Enriched and authentic dialogue is a fragile human endeavour which requires time. In many ways, it involves, as one manager puts it (Frank), “the art of losing time to save time”. This is not to say that the two groups we studied were sheltered from the daily organisational pressures and objectives to ‘meet the schedule’. Yet, as Chanlat and Bédard (1990) argue, the lack of an authentic will in taking the time to listen and be open towards another can provoke feelings of mistrust. Furthermore, as we shift more and more towards managerial ideologies based on short term efficiency (where we adhere to the mantra of ‘be brief’ across the sole and systemic use of conduit type communication methods), we may risk inducing various consequences (technical, financial, etc.) due to mis-communications.

CONCLUSIONS

Our research first proposes, across discourse analysis, a dialogical knowledge construction process, which on the one hand, across emergent categories brings forth the notions of perspective-making/giving and perspective-taking at the interpersonal level whereby it describes the micro-interactions between individuals (as represented across *Self* and *Other*). In addition, we discerned and integrated into the dialogical process the concept of boundary constructions: here, rather than seeing objects as distinct end-resultant or static instruments being fully separate from the actor-subject, the dynamic and transient nature of the ‘object’ is more fully captured across an acknowledgement of the actor-object interaction, which in the end, is what vivifies and renders perspectives more easily understandable across the *Others’* lenses.

In terms of ‘why-it-occurs’ as such was seen across our observations of how knowledge complexification involves a primary ambiguity or antithetical dyad at an ontological level whereby the *Self* and *Other* fully acknowledge and appreciate one another across ‘individual *Self*-emancipation’ vs ‘identity towards the *Other*’. This in turn is nurtured across feelings of mutual trust, mutual respect, mutual support and empathy – all very human traits, which we tend to forget and take for granted as we get caught up in the ‘mechanics’ of the process itself. It is across the presence of these two ontological yet antithetical elements that the *Self* attempts to place himself in the *Other’s* ‘shoes’ and vice-versa; and where individual learning and creation of new knowledge by both the *Self* and the *Other* can potentially occur. It is also a reminder for management that effective knowledge creation, sharing and learning is first and foremost a very human process. It is this ontological relationship between the *Self* and the *Other* which allows for specific secondary antithetical, yet complementary, knowledge to be expressed, integrated and synthesized within the dialogical process.

Although much more work is still required before we can make any firm statements on management implications, preliminary indications seem to imply that management can play a key role towards achieving such an enriching dialogical process by providing a psychological ‘safety net’ to its workgroup members, whereby individuals are given the time and freedom to express themselves all the while being open to differing viewpoints and experiences.

We realize that within the scope of this paper many outstanding questions still remain and are the subject of further studies: such as how exactly does explicit and tacit knowledge fit into the dialogical model that has been proposed; or what characteristics (or breakdowns) does the dialogical process exhibit when dialogue becomes more coercive or conflictual in nature.

Furthermore, this single case study prevents us from generalising our findings across the entire firm in question; and by extension, any manner of external validity outside of the firm's context. Additional workgroups/teams within the firm need to be evaluated; while similar studies in other institutions within the knowledge economy are to be envisaged.

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GLOBAL FINANCIAL CRISIS: CAUSES AND PERSPECTIVES ^{*}

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Purpose – This study aims at examining the current global financial crisis, and in particular its main causes and perspectives, in order to define the way they can be avoided in the future. We think that there is a need for a new International Financial System with the function of coordinating and guiding the different national and supranational institutions.

Design/methodology/approach – Complexity Theory and Viable System Approach have been used for the analysis of the global financial system.

Findings – The findings suggest that they are implicit features of these kinds of markets, due to their high uncertainty and hyper-competitiveness, rather than temporary deviation from normal equilibrium. In this way, financial markets can be thought as Complex Adaptive Systems (CAS), that are systems on the edge of chaos, so, while tending toward certain attractors, they may precipitate in disorder and chaos because of a seemingly mild event which activates latent forces and leads to emerging and unpredictable consequences. Furthermore, as it has emerged from the last G-08 and G-20 meetings, the orientation of international partners is to move towards a new order, a real new international financial system, where the stabilisation of financial system does not pass only through the bodies created in Bretton Woods, but through the endowment of new rules and new structures.

Research limitations/implications – The discussion stresses a series of research propositions for future researches aimed at improving the understanding of the problem.

Practical implication – The findings suggested some measures to limit future instability and crises, and to reduce their negative consequences.

Originality/value – The paper provides a new methodology to examine the financial crises and the way to limit them.

Keywords – Financial crisis, Complexity, Viable System Approach, International Financial System.

Paper type – Conceptual and Research paper

INTRODUCTION

The Traditional Theory of markets considers financial crises and speculative bubbles as temporary deviations from efficient logic of markets, due to the irrational behaviour of operators.

The high frequency of these events (such as the Great Depression of 1929, the crisis of the international banking system of 1982, the Asian financial crisis of 1997-1998, the technology bubble of 2000-2001, and the current global financial crisis) demonstrates that they are implicit features of these types of markets, due to their high uncertainty and hyper-competitiveness, rather than temporary deviation from normal equilibrium (Reinhart and Rogoff, 2008a). Moreover, a direct consequence of these crises is both dramatic currency devaluation and a crippling decline of the banking system, such as those witnessed recently in East Asia, Latin America and Russia.

** Also if the research paper is the result of common reflections, the paragraphs 1., 3., 3.1 and 4.1 are attributable to Elio Iannuzzi, while the paragraphs 2., 3.2 and 4 are attributable to Massimiliano Berardi.*

In this way, we can overcome the dominant paradigm, which has favoured the current systemic crisis by inspiring several wrong decisions – such as the deregulation of investment banks, the monetary policy of Greenspan (In various speeches as the head of the Federal Reserve System, Alan Greenspan concluded that credit derivatives and other complex financial instruments have contributed “to the development of a far more flexible, efficient, and hence resilient financial system than existed just a quarter-century ago”, and that “The new instruments of risk dispersion have enabled the largest and most sophisticated banks in their credit-granting role to divest themselves of much credit risk by passing it to institutions with far less leverage”) (Greenspan, 2004), the wide spread of financial innovations, etc. – because based on the wrong assumption that markets are efficient self-organizing systems, able to allocate financial sources in a rational way, and we can adopt an approach which considers markets as systems far from equilibrium, because of different elements and, in particular, because of human behaviour that, usually, is oriented to the pursuit of personal interest (Pitelis, 2002).

Therefore, financial markets can be thought as Complex Adaptive Systems (CAS), that are systems on the edge of chaos, so, while tending towards certain attractors, they may precipitate in disorder and chaos because of a seemingly mild event which activates latent forces and leads to emerging and unpredictable consequences. For these reasons, they “can only be grasped locally, hence partially and inadequately” (Van de Vijver G., 1998, 250).

Furthermore, they act on the basis of decisions and dealer activities founded on partial information and foresight, instinct, previous experiences, emotions which influence and, at the same time, are strongly conditioned by those of other irrational operators. Hence, the evolution of the system is extremely uncertain and unstable.

In other words, global financial system is very complex and sensitive to the change of initial and external conditions.

THE COMPLEXITY APPROACH

The Complexity Approach is not a scientific theory, rather we can speak of *epistemology of complexity* as interdisciplinary study of complex adaptive systems and emerging phenomena. Although this concept has deep historical roots, the movement of complexity gained ground in the course of the 1980s, with the foundation of the Santa Fe Institute by the work of the scholar Murray Gell-Mann (Lorenz, 1963; Pascale, 1999).

Some scholars consider this “new science” as a paradigm shift from previous sciences (see Cybernetic Theory and the General Theory of Systems); conversely, others imply that it is a new paradigm, by associating previous science with Modernism, and Complexity Theory with Post-Modernism or Anti-Positivism (Lee, 1997).

The different approaches to complexity theory have the study of systems in common, assumed as sets of elements and components that are organized and react to the structures and models they contribute to co-create: “[...] complex systems are systems in process, systems that constantly evolve and unfold over time” (Arthur, 1999, 107).

These complexity theory studies are focused on the problems linked to order creation and, particularly, on the effects caused by non-linear discontinuities, rapid transaction phases and co-evolution processes determined by events that are apparently disjointed and unforeseeable (McKelvey, 2004).

In this way, by adopting a systemic perspective, complexity theory is focused both on the effects of the behaviour of components on the overall system which they belong to, and on the intra and inter systemic relationships (Carrol and Burton, 2000). Evidently, we are referring to

the complexity of open systems, according to Prigogine, and not to that defined as *computational complexity* (Hilbert) which concerns closed systems (Prigogine, 1990). Furthermore, business organizations are highly interdependent with external environment and, unlike logic and mathematics, they incur problems that are not clearly defined and evolve continuously because of internal and external constraints. Therefore, these problems are unlikely to be solved within the framework of traditional schemes.

A system cannot be examined and understood as a single phenomenon, but it should be contextualised within the framework of interconnections and interdependences with external environment, from which the same system derives the degree of complication or complexity of its representation (Siano, 1997). It follows a vision of the complexity as the science of contextualised mechanisms and interactions; the mechanisms may be described as the dynamic behaviours within the system (Hernes defines mechanisms as “a set of interacting parts – an assembly of elements producing an effect not inherent in any of them”. Hernes, 1998, 74); while the context may be configured as the set of structural, organizational and behavioural features affecting and regulating the nature and type of systemic dynamics. In other words, the context can be assumed as the complex of relationships and interactions among people, ideas, traditions, organizations, etc.

Nevertheless, the complexity must not be understood as an objective and implicit characteristic of certain systems or phenomena, but also as the feature of the available representation of the same system. In this vein, phenomena are neither simple nor complex, but they become simple or complex because of the cognitive process of the observer (La Moine, 1995).

The degree of knowledge determines the level of complication or complexity of the phenomenon. In a specific way, complexity arises from the incapacity of the observer to build an interpretative model; on the contrary, the complication is linked to the difficulty to understand such an interpretative model. In this sense, at the same time, low complex systems may be very complicated because the model that describes them may result difficult to be interpreted (Baccarani and Golinelli, 2008). Furthermore, the complexity refers to the functioning of the system that may be more or less understandable and predictable because of the variety and variability of internal components and of external relations; differently, the complication appears to be a feature of the model or of the representation of the phenomenon.

The growth of the number of relations and interaction increases also the complication and the complexity of the phenomenon, because it increases the amount of information and number of variables that must be considered and interpreted. Therefore, the complexity appears to be the result of both the interdependencies and interconnections which involve the system and its components, and of the system sensitivity to the change of initial conditions (Rullani, 1989).

The complexity acquires also a historical dimension, because what today is considered as complex, may not be the same in the future. For this, the problem is not the complexity itself, but the dynamism of the phenomena. In such a way, we could speak of *evolutionary complexity*.

The complexity theory investigates CAS, i.e. dynamic systems, characterized by multiple and overlapped hierarchies, which, like the individuals that are members, tend to create interactive and evolutionary networks with other systems. The behaviour of the interconnected agents of a CAS generates, also, emerging creativity and learning, where emergency refers to the non-linear and unpredictable changes of complex systems and it is due to the so-called *latent forces* (Plowman *et al.*, 2007).

In particular, “complex systems consist of a large number of elements”; “the elements in a complex system interact dynamically”; “the level of interaction is fairly rich”; “interactions are non linear”; “the interactions are fairly short range”; “there are loops in the interconnections”; “complex systems are open systems”; “complex systems operate under conditions far from equilibrium”; “complex systems have histories”; “individual elements are ignorant of the behavior of the whole system in which they are embedded” (Cilliers, 1998, 37).

Nevertheless, the complementarity and interdependence of the structures, activities, formal and informal relations of its agents support the self-coordination and the flexibility of the system. For this, the system is defined as adaptive and the more numerous are the factors that influence its adaptation to the environmental change (for example, random factors, learning, etc.), the more are the complexity and the unpredictability of its behaviour.

“A path-dependent process is *non-ergodic*: systems possessing this property cannot shake off the effects of past events, and do not have a limiting, invariant probability distribution that is continuous over the entire state space [...] small events of a random character, especially those occurring early on the path, are likely to figure significantly in selecting one or another among a set of stable equilibria for such a system. Under those conditions, *ex ante* predictions of outcomes may not be possible.” (David, 1992, 208). During the evolution of the system, its components co-change through the development of co-adaptation strategies (cooperation, communication, etc.).

However, the firms environment and context are eminently dynamic and complex: the laws that regulate market and competition change; the preferences and expectations of stakeholder change; the technology and techniques of production and the information systems change; the strategies and the behaviour of competitors change. In this scenario, the entrepreneur is called to constantly monitor the evolution of the context and to take continuous structural, organizational, strategic, managerial and operational adjustments.

Moreover, not all the environmental changes are understandable and predictable: in fact, the complexity often means uncertainty and ungovernability, especially in the case of systems characterized by no fully definable borders and by latent energies and high sensitivity to internal and external changes. In other words, the evolutionary complexity of both internal and external contexts makes the great part of future changes and of their implications on markets and competition unpredictable and uncontrollable.

It follows that the complexity increases the uncertainty and the casual ambiguity related to the resources and to the skills and competences the firm must have in order to exploit effectively the opportunities that emerge over time.

Not all the systems have, however, the same capacity for evolving and developing; in particular, this capacity is influenced by the degree of stability or instability of the system. While chaotic systems manifest a widespread inability for evolving and adapting because they are not able to organize and coordinate their behaviour; ordered systems are likely to be conditioned by excessive rigidity and static nature.

Indeed, a system may evolve towards the order, where it remains despite the disruption deriving from outside; towards the chaos, where it moves in an irregular and unstable way; towards the edge of chaos, where, while it converges towards certain attractors, sudden events may destabilize and remove it. Some system patterns that emerge over time have been distinguished: fixed or static, periodic or cyclical, chaotic or strange, colored noise and random (Dooley and Van de Ven, 1999).

The hypothesis is that complex adaptive systems exist at a poised state between too much and too little connection, the so-called edge of chaos, which gives them flexibility and adaptability. These systems “may have special relevance to evolution because they seem to have optimal capacity for evolving” (Kauffman, 1991, 82). Indeed, systems that are only sparsely connected are too static, while those that are overly connected are inherently unstable (Carroll and Burton, 2000).

Kauffman theorizes that four variables (N, K, P and C) in non-linear dynamic systems affect the level of stability of the system and hence its evolutionary capacity, thereby also helping to define the relative degree of complexity:

1. “N” represents the system or organization’s number of components;
2. “K” is the level of inter-relatedness or interaction of the components, measured by inputs to each “N”, which introduces non-linearity into the system (Morel and Ramanujam, 1999);
3. “P” is the common schemata the components share and it is a measure of internal homogeneity;
4. “C” is an inter-system variable. Indeed, it represents the level of inter-relatedness or interaction of “N” across system (this is the second source of non-linearity – Schneider and Somers, 2006).

Furthermore, the level of complexity is also conditioned by both the structure and the genesis of the system.

On one hand, it depends on the degree of autonomy of its components or, in other terms, on the capacity of top management for coordinating and controlling the components. In particular, the more is the degree of autonomy, the more will be the complexity.

On the other hand, it depends on the origin of the system: this can be top-down or bottom-up. It is clear that emerging systems (those that have a bottom-up origin – such as the financial system) usually have a higher level of complexity, especially if they lack a common management. For this, they are difficult to manage and control. The only way to partly regulate these kinds of systems is by imposing constraints and rules from outside (this is confirmed by the current financial crisis).

What is more, the difficulty in managing the financial system appears to be due to its nature of “system of systems”: in other words, it is not a single system, but an assembly of systems that are far from each other, but at the same time they are strictly interconnected and interdependent each other. In this way, small initial events can lead to complexity cascades of avalanche proportions, because of latent forces. Moreover, the borders and the relations of these systems are informal and unstable: this produces a further increase of complexity.

In this view, financial system like CAS appears to be in unstable equilibrium at a poised state between order and chaos, creation and destruction, that is the edge of chaos.

Such considerations explain why we use the Systemic Approach to the Complexity in order to analyse, interpret and describe the functioning of the global financial system, giving particular attention on the examination of causes, circumstances and prospects of the current financial crisis.

THE COMPLEXITY APPROACH FOR THE ANALYSIS OF GLOBAL FINANCIAL SYSTEM

Our hypothesis is that market operators and, in general terms, people tend to decide by instinct and perception, rather than by real knowledge of things (Akerlof and Shiller, 2009).

Especially within financial markets, decisions can influence significantly the evolution of events. From they own, changes modify perceptions and decisions of participants and determine new unpredictable evolutions of system.

These dynamics are not always sequential, but they can act simultaneously too, and for this they further increase indetermination and uncertainty (Soros, 2008).

For instance, within financial markets, prices depend on prevalent expectations which can be wrong and replaced by other dominant expectations. However, rarely these inaccurate understandings of events start a boom-bust process. Moreover, if simultaneously similar and interconnected processes take roots, they can cause the crash of the system as a whole.

In this view, we can analyse the current financial crisis which, differently from other past crises, does not concern a single segment of market, rather, starting from a sector of market (that of mortgage loans) it has activated series of hidden forces which have made global financial system strongly unstable and have caused high, strong and long-lasting consequences on real economy (Hasman and Samartín, 2008). Furthermore, it has spread from the United States to the global financial system through the insurance companies, investment funds, investment banks, derivatives and especially through the new information and communication technologies (Tremonti, 2008; Rullani, 2004).

For this, we can observe that financial markets do not tend to a natural equilibrium, but it is necessary an adequate regulation which does not limit innovation and must be continuously adapted to system changes.

However, although empirical evidences demonstrate the fallibility of regulators, they should not be eliminated because sometimes market is not able to self-organize (see for instances the Big Crash of 1929 and the current financial crisis).

Really, it is not easy to find causes, evolutions and future consequences of the current crisis, but we need to analyse and understand monetary and economic policies implemented in different Countries and, firstly, in the United States.

The mortgage bubble and the way the crisis has developed – from *subprime* loans until to crashes on the stock exchange, banks and insurance companies bankruptcies, and recession, – prove the inadequacy of some institutional measures.

The Big Crash of 1929: the basis for the current financial crisis

Although we have to consider that there are no significant similarities between the current crisis and that of 1929, as they occurred in different historical contexts (for instance, in 1929, there was a fragmented banking system, currently, a more concentrated one), because of opposed factors and conditions (see the balance of payment), and with different implications as a result of unequal policies (in 1929, a protectionist and deflationary policy, in 2008, one oriented to provide liquidity), we have to emphasize homogeneity in the underlying dynamics:

1. an initial favourable event that has given widespread expectations of profit (in both cases we note the reduction in the interest rate);
2. a phase of liquidity growth, characterized by a boom of loans and by a large use of leverage;
3. a phase of increasing profits;

4. a breaking point followed by a systemic collapse (in 1929, there was the crash of the stock market; in 2007-2008, the collapse of real estate – see figures 1 and 2);
5. a phase of instability and depression (in 1929) or recession (nowadays) characterized by panic, deleveraging and lack of liquidity.

Therefore, the understanding of the current financial crisis requires the analysis of the Big Depression of 1929 which started with the slump on the stock exchange and the following bank run and liquidity drop which struck banks in the world as a consequence of both the credit expansion policy of the Federal Reserve System (between 1927 and 1928, the discount rate was lowered to 3, 5%) and the phase of speculation and growth in share prices between 1928 and 1929 (see the following figure).

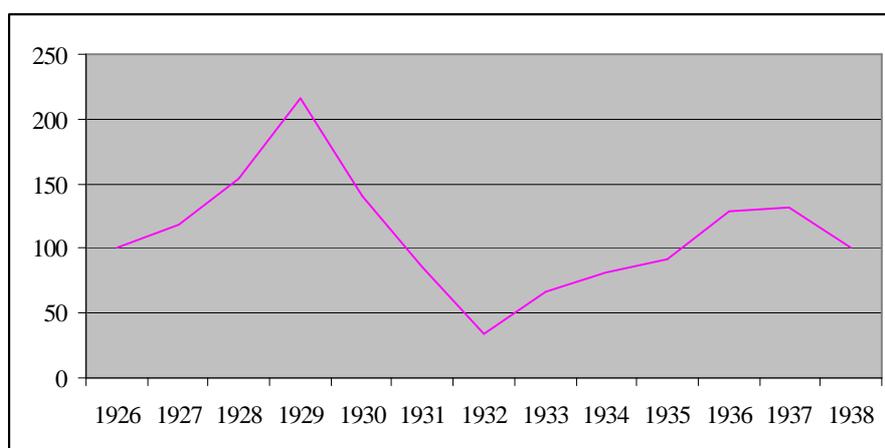


Figure 1: Trend in share price according to the Standard Statistics index, between 1926 and 1938

Source: Our elaboration from Kindleberger, 1993, 91.

This was not an occasional and unpredictable event within the natural course of financial activities; rather, like current financial crisis, it was the obvious outcome of a long lasting phase of bad governance of banks, which worsened credit quality and amplified negative effects on the global financial system and real economy.

Between 1929 and 1933, the high opacity and riskiness of management was the main cause of the failure of more than 5,000 banks in the world, with more than 3,000 billion dollars in deposits. Really, the high number of banking failures was due to the structural weakness of past financial system too, which was characterized by a multitude of small independent units.

In this view, the sharp decline of the currency quantitative that followed the collapse of the stock market, and the inability of the banking system to gain sufficient liquidity to meet the large and pressing demands of currencies by depositors played an essential role in the expansion of the crisis at global level.

Moreover, there was another factor that made the situation even more volatile: several countries (such as Germany and Latin America) were running massive current account deficits financed by the United States. This unbalanced condition was worsened by surplus of export over imports – between 1924 and 1929 the United States hold an amount of credits to other countries equal to 6,400 million dollars (Kindleberger, 1993, 42). When the debtor countries

became insolvent and it occurred a substantial fall in exports, this special condition of the balance of payments aggravated further the internal crisis (Galbraith, 1972).

Between 1929 and 1933, central banks, the Treasury and the Federal Reserve System adopted a passive, uncertain and protective policy because of both the evaluations of the economists – many of them considered depression as a desirable economic event, necessary to overcome the system inefficiency and weakness – and the misunderstandings of governors (Friedman and Schwartz, 1972).

Nevertheless, in the most industrialized countries, the forces of continuity (central banks, Government, Federal Reserve System), faithful to the validity of the Orthodox remedies, reacted to the crisis on the basis of restrictive and deflationary policies, oriented to prevent speculation and to the attainment of a balanced budget, by increasing taxes and reducing public expenditure. This started a vicious circle, characterized by liquidity and consumption drops, which consolidated the downward spiral and aggravated the recession in a real long depression (Pollard, 2004).

Furthermore, we think that the premise for the current financial crisis has been made in the days after the Great Depression, when it was issued a regulatory system for savers (the so called *Glass-Steagall Act*), that distinguished financial institutions in *commercial banks* – which could accept bank deposits and therefore were subject to strong restrictions on the risks in order to have easier access to credit granted by the Federal Reserve (FED) – and *investment banks* – which were not authorized to accept bank deposits and their activities were much less regulated because they were not exposed to bank runs (Federal Deposit Insurance Corporation, 1933).

In fact, if on one hand, this regulation has helped to keep a certain stability of the financial system for almost seventy years – at least until it was repealed in 1999 (by the Gramm-Leach-Bliley Law), during the so called *deregulation* phase willed by Greenspan and based on the assumption that markets would subsequently self-organize – on the other hand, it has allowed an uncontrolled development of investment banks. In such a way, investment banks have gained more and more relevance, even to overcome the traditional bank system, by developing the same activities and offering similar services as commercial banks, but under no regulation and control of risk. What is more, in 2004, the Securities and Exchange Commission (S. E. C.) gave to the investment banks an exemption from a regulation that limited the amount of debt – known as the net capital rule. By increasing the level of debt, they were able to invest in the opaque market of mortgage-backed securities and credit default swap. Indeed, “prior to 2004 broker dealers were supervised by stringent rules allowing a 15:1 debt to net equity ratio. Under the new scheme investment bank could agree voluntarily to SEC consolidated oversight (not just broker dealer activities), but with less stringent rules that allowed them to increase their leverage ratio towards 40:1 in some cases” (Blundell-Wignall *et al.*, 2008, 4). For instances, in a few months the leverage ratio at Bear Stearns rose to 33:1; this made the bank very risky since it held only \$1 of equity for \$33 of debt (Labaton, 2008). It has definitely “allowed the growth of highly risky and fraudulent mortgages without recognizing the ‘self-destructive power’ of this type of mortgage lending with virtually no regulation (Skidelsky, 2008). The Fed could have put a stop to it by using its power under a 1994 law (Home Owner Equity Protection Act) to prevent fraudulent lending practices. It was obvious that the mortgage industry was out of control and was allowing individuals with very little money to borrow huge sums of money. Greenspan could also have used the monetary powers of the Fed to raise interest rates which would have ended the housing bubble.” (Friedman and Friedman, 2009, 9).

This has recreated the conditions of such a financial vulnerability that made possible the Great Depression (Krugman, 2009).

The global financial crisis of 2007-2008

Although the reasons are many and distant in the years, the root cause of the global financial crisis of 2007-2008 is the growth of the bubble of real estate loans, as an effect of too much liquidity placed on the market by strongly expansive monetary policy of the Fed of Greenspan. Between 2001 and the 2004, in order to strengthen the labour market and the economic system, it lowered the interest rate to 1%. This, together with the propensity for speculation and over-indebtedness expressed by American peoples and fostered by generous ratings and widely optimistic evaluations of risk, led to a dilation of mortgage loans. Moreover, a high percentage of the these loans were *subprime* and *Alt-A* mortgages, namely loans of low quality. A subprime mortgage can be simply defined as a mortgage that is issued to a borrower who has a weaker credit profile than a prime borrower. The innovation here is that the borrower has a weak credit profile when the mortgage is made. Differently, *Alt-A* mortgages are mortgages that are between prime and subprime in terms of credit quality, and are generally underwritten with less than the complete documentation required of prime mortgages (Udell, 2009).

However, consumers have used debt also to finance banal purchases and durable goods, as cars, appliances, clothes, holidays, education, etc., with the result of increasing considerably the risk of insolvency.

Such trends, supported by increasingly pushed and risky practices and encouraged by the use of sophisticated tools of mobilization of loans, have unbalanced and destabilized the finance of families and intermediaries which have started to get into crisis with the growth of the interest rates, imposed by Fed between 2004 and 2006 (1.5% to 5, 25%), and with the reduction in house prices in 2007 (- 9, 7%) and 2008 (- 15, 3%) (Partnoy and Skeel, 2006).

In fact, the widespread conception of the real utility of innovative finance, as a tool through which banks could reduce and transfer some or all of the credit risk to another party once incorporated into new financial products, has lead both the banks to grant more loans, and the families to get into more debts (the so-called *irrational exuberance* – Shiller, 2008).

Year	Subprime			Alt-A			Jumbo			Agency			Total		
	Disb.	Secu.	%	Disb.	Sec.	%	Disb.	Sec.	%	Disb.	Sec.	%	Disb.	Sec.	%
2001	190	87	46	60	11	19	430	142	33	1433	1087	76	2113	1327	63
2002	231	123	53	68	54	79	576	172	30	1898	1422	76	2773	1771	64
2003	335	195	58	85	74	87	655	238	36	2690	2130	79	3765	2637	70
2004	540	362	67	200	159	79	515	233	45	1345	1018	76	2600	1772	64
2005	625	465	74	380	332	87	570	281	49	1180	964	82	2755	2042	74
2006	600	448	75	400	366	91	480	219	46	1040	904	87	2520	1937	77
2007	191			275			343			1162			1971		

Table 1: Value of mortgages disbursed and securitized in the United States between 2001 and 2007 (\$ mln). **Source:** Inside Mortgage Finance, 2008.

We can observe that the securitisation, even if potentially effective to reduce the risk of credit, has been used inappropriately, under no regulation and control, to finance high volatility

mortgage loans. Moreover, an analysis on the Federal Reserve Bank of Chicago Bank Holding Company Database emphasises that “the net notional amount of credit derivatives used for hedging of loans in 2005 represents less than 2% of the total notional amount of credit derivatives held by banks and less than 2% of their loans.” (Minton et al., 2009). It means that the remaining part (that is more than 98%) was used for speculative activities.

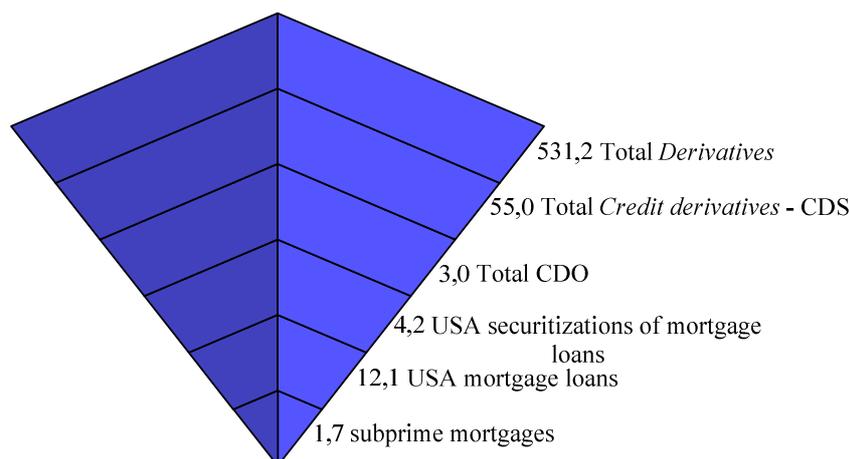


Figure 2: Securitizations of mortgage loans (thousand of \$ billions). Source: Our elaboration from Sole 24 Ore Data

In this way, the only relevant outcome for banks and insurance companies from using credit derivatives has been the multiplication and exchange of risks that are impossible to evaluate. Indeed, pools of mortgages and, particularly, subprime mortgages have been securitised in obligations, the so called Asset-Backed Securities (ABS), which in turn have been incorporated in new debt securities (the so called Collateralised Debt Obligation – CDO) by other banks, insurance companies or other intermediaries, and so on up to be transferred to the investment of savers (Onado, 2005). There has been a process of production of “finance by the means of finance”, due to the orientation of financial institutions to maximise the amount of lending and, therefore, the charges, regardless the possibility of repayment. Indeed, they have been concerned to transfer as soon as possible the risk to a wider audience of investors (Onado, 2009). Hence the most of the risk has been transferred on investors who, often unwittingly, have been pushed to buy from banks and other intermediaries portfolios of public and private shares, credit derivatives and other risky products (The Economist, 2005).

Of course, this mechanism was got in crisis by the strong rise in mortgage loans and the fall in prices of houses (which have reduced the value of the buildings in guarantee): for this reason, a large part of the indebted families became insolvent. “The impact of these defaults on the financial sector has been greatly magnified due to the complex bundling of obligations that was thought to spread risk efficiently. Unfortunately, that innovation also made the resulting instruments extremely non-transparent and illiquid in the face of falling house prices” (Reinhart and Rogoff, 2008, 4).

In such a way, it has been refuted the basic principle on which the expansion of mortgage loans was founded: indeed, as long as the house prices have continued to rise, the borrowers in

financial straits have been able to renegotiate the loans or sell property; but when prices have fallen, the system has gone into crisis and the percentage of insolvency has grown to 40.28% for loans granted in 2006 (Reuters).

In other words, such an event, that in a condition of less leverage would have generated, obviously, less significant consequences, in this case has started a process of chaotic deleveraging that has expanded the negative effects of the crisis to the global financial system (Iannuzzi and Berardi, 2006).

The fall in housing prices and the consequent impoverishment of the families have led to a sharp reduction of consumption; this has plunged the sales, and the production system has gone into a difficult stage, that has become even worse because of the credit crunch, which has not only reduced the investment but also caused a series of bankruptcies.

In fact, financial institutions, to cope with losses and because of their inability for recapitalising their finances, have been forced both to reduce the value of assets and to ration the credit to companies and families (Spaventa, 2008). The following figure shows the sharp increase in housing price inflation from mid 2003 to early 2006 and the subsequent decline. We can observe that delinquency rates and foreclosure rates were inversely related to housing price inflation during this period. While, “during the years of the rapidly rising housing prices, delinquency and foreclosure rates declined rapidly. When prices are falling, the incentives to do so are much less and turn negative if the price of the house falls below the value of the mortgage. Hence, delinquencies and foreclosures rise.” (Taylor, 2008, 11).

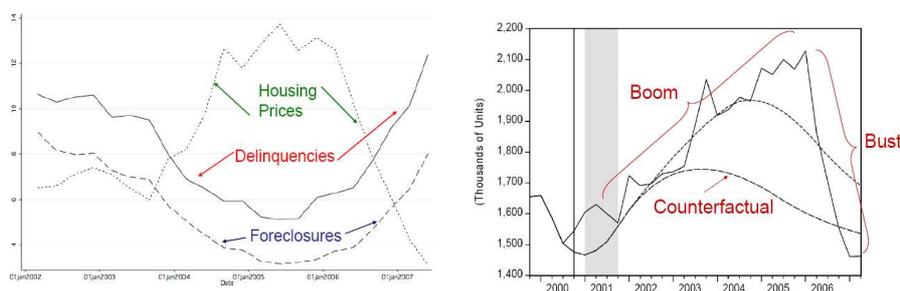


Figure 3: Housing price inflation and subprime ARM delinquencies and foreclosures – the boom-bust in housing starts compared with the counterfactual. Source: Our elaboration from Taylor, 2009, 5-11.

In this view, it is clear the inadequate understanding of the issues by the Fed and by the U.S.A. Treasury, and as a consequence the ineffectiveness of their policies. For example, the same further reduction in the discount rate on federal funds has not produced significant effects because we are facing with a difficult moment, that is far from normality (Krugman, 2009).

Obviously, since the beginning of the crisis, the investment banks were the most affected and suffered heavy losses. Moreover, the same losses have been increased by their vehicles, that is off-balance sheet companies used by investment banks to buy further securitized obligations (Iannuzzi, 2004).

This has led to concern and crisis of confidence, not only from investors, but also among the banks which have significantly reduced the interbank loans in the face of a substantial increase in the interbank rate. This has increased the fear of a credit crunch and has worsened the expectations in terms of fall in consumption, production, investment and employment. In this context, it was not enough the significant liquidity introduced into the system by the central

banks (this solution would have been more effective in 1929 when the main problems were not the crisis of confidence and the counterpart risk, rather the strong monetary contraction – Taylor, 2009).

Asymmetric information in the context of financial system has accelerated the process of feedback among contraction in asset value, reduction in financing, liquidity crisis, losses and lack of capital. In short, the expansion of the crisis has been induced, on one hand, by the close interdependence and interconnection among the financial markets and, on the other hand, by the high degree of opacity and uncertainty about the effective level of losses and the size and distribution of the risks (Impenna, 2009).

For these reasons, in the days after the collapse of the real estate market, investment banks were the first businesses to go into crisis, disappearing from international financial scenario and suffering bankruptcies, mergers, acquisitions and nationalization. “In the US, events began with the unrest around the sale of the so-called sub-prime mortgage packages and, when things started to go horribly wrong, the rescue of the bank Bear Stearns with the Federal Government pumping large amounts of money into that bank to keep it alive. Shortly thereafter, the much larger merchant bank, Lehman Brothers, went into trouble and was not ‘helped’ by the US authorities with the direct result that it had to go into receivership. Subsequently, Merrill Lynch, another merchant bank, was taken over by and found shelter with Bank of America and escaped a similar fate” (The WTO Doha Round and Regionalism, Kluwer Law International, 2009).

Moreover, the opacity and ambiguity of their balance sheets, together with the inadequate rules, show the personal responsibility of managers, focused primarily on their own short-run profits, rather than on the creation of the stakeholders’ value in the long term.

Nevertheless, it appears difficult to recruit the thesis of unawareness of the Fed and central banks in what was happening. In fact, they hold the information, quantitative surveys and, above all, the experience to provide the destabilising effects resulting from high inflation, widespread financial speculation and continued expansion of liquidity and credit (Pavlov, 2009). Already in 2003, the Bank for International Settlements did not exclude acute phases of weakness caused by the growth of debt (Bank for International Settlements, 2003). Also Rajan emphasized weighty responsibility of asset managers of banks, investment funds, hedge and private equity funds, who oriented themselves to high-risk investment (Ryan, 2006).

For these reasons, no one could deny that on the markets there was optimism, but it was clear that such an optimism was increased by the irresponsible expansive monetary policies (Bruni, 2008).

In addition, markets became extremely sensitive and widely exposed to systemic risk, that is a potential source of insolvencies and bankruptcies, because of the so-called policies of deregulation. Indeed, the real criticality has been expressed in the existence of an asymmetry between highly regulated areas, such as the Europe, and other without clear and structured rules, such as the United States. This, combined with the globalisation and the interdependence and integration of financial markets, has created a paradoxical mechanism, a real vicious circle: hence, developing forms of financial activity has been possible in a context with no rules (Tremonti, 2009). In this sense, although the crash occurred under no regulated segments of the U.S. financial system, its impact has been amplified by the heightened level of leverage and by the structured products and the currency crisis.

This has contributed to spread the speculation, guided by short-termism of managers, who have contributed to make the markets extremely volatile, unstable and inefficient (Jensen, 2002).

Moreover, decisions were based on mathematical and statistical models that, although realized on the basis of a wide range of variables, were always approximations of the reality, and therefore they should have been interpreted and framed (Friedman and Friedman, 2009).

Furthermore, the orientation, which induces increasing bargaining in order to achieve capital gains – even with high risky practices and insider trading –, was promoted by the pay system of managers and other financial operators, which is still linked to short term performance compared with those of competitors (Smith, 2003).

Market instability was also accentuated by the international imbalance that was created after the Bretton Woods agreements, among the oil exporting countries and emerging countries, in significant structural surplus, and the United States that, contrary to what happened in 1929, were heavily indebted and exposed to risk (Blanchard, 2007).

IMPLICATIONS AND PERSPECTIVES

There are two main points of view concerning the causes of the current crisis and the way to overcome it: on one side, statisticians – many of them are politicians – support the decline of the American capitalism, based on deregulation which has fostered the degeneration of finance and globalization (Tremonti, 2008); on the other side, liberalists still assume markets as fully efficient and accuse politics as the only guilty of the crisis (Alesina and Giavazzi, 2008).

Really, the succession of stages of expansion interrupted by moments of great uncertainty and recession proves the substantial imperfection of markets and their incapacity for self-organization.

Nevertheless, globalization, increasing complexity and rapid change make many regulatory mechanisms ineffective in facing with the formation of speculative bubbles which generally precede more or less intense crises. In this sense, the current systemic crisis has highlighted the insufficiency of regulatory standards and the failure both of the system of control of intermediaries, and of the financial markets.

Even if it is not obvious that the strengthening of stability of financial system would prevent the formation of speculative bubbles and new systemic crises, as the Great Depression showed, we must not adopt passive policies; the same failure of institutional systems and rules of jurisdiction and control requires their review and the implementation of a careful policy in order to prevent the spread of the negative effects of the crises. In other words, if it appears impossible to avoid the formation of future financial crises, as features of modern capitalism resulting from the interactions between hardwired human behaviour and the unfettered ability to innovate, compete and evolve, “their disruptive effects can be reduced significantly by ensuring that the appropriate parties are bearing the appropriate risks, and this is best achieved through greater transparency, particularly in the so-called ‘shadow banking system’” (Lo, 2008, 1). Moreover, it is impossible to foresee how future financial crises will occur; for this reason, the system requires openness, flexibility and adaptability to contingencies (Schwarcz, 2008).

The growth of financial activities and its detachment from the real economy require a real change of attitude and a review of the financial system in order to better satisfy the expectations of relevant stakeholders, such as savers, consumers and firms, by promoting sustainable development and by supporting productive investment and innovation. This measure derives from the necessity to reduce the short-term orientation, in the awareness that, in the long term, capital gains depend on the expectations from real economy. In fact, the propensity to short term profits through increasing share prices and share-out, rather than the orientation to long term value by improving employment, innovation and productivity have caused a division

between financial system and real economy. The same logic of business has led to be based on financial leverage that has supported debt during the expansion, while it has accentuated the collapse during the unfavourable phase of the economic cycle (Sapelli, 2008).

However, the concept of corporate governance, as complex of various forms of self-regulation based on ethical codes of best practices, and characterized by independent managers is marking the moment of its decline (Gordon, 2007). The presence of powerful independent directors who act in the context of several committees – e.g. for the internal control, for the stock option plans and for the control of the external auditors – in a condition of substantial “collective irresponsibility”, does not appear sustainable by the modern financial capitalism (Rossi, 2008, 78). It appears difficult to imagine and achieve satisfactory results in terms of pursuit social interest and satisfaction of stakeholders expectations by basing on mere ethical codes of self-discipline, when directors are induced to undertake high-risk investment in order to increase their own profits. Differently, the variable part of their remuneration should be linked eminently to the long term performance of company and the directors should be made more responsible by sharing not only profits, but also losses.

In this view, also the function of balance sheet has been changed: from information tool useful for the board of directors, the shareholders and the investors in order to evaluate the performance of managers and the stability of the company, it has been degraded to a tool for transferring to the market a continuous flow of announcements to push the share price up. In this sense, the morphology of modern financial capitalism is focused excessively on the short term, neglecting the logic of intangible assets and of the statement of assets and liabilities which highlights the structure, history, competences and values of the company.

Despite the innovations in the instruments of risk analysis, a significant evidence from the crisis are the mistakes made by banks and rating agencies in evaluating the risks (Metallo, 2007). This is due to the failure of the models of corporate governance, with particular concern to the relationship between management and control of risk. For instance, a common measure of risk that was very popular with the financial engineers was VaR (Value at Risk). It is a short-term measure of risk (daily, weekly, or for a few weeks) is one number and is based on the normal distribution. For example, a “weekly VaR of \$100 million indicates that, for the week, there is a 99% probability that portfolio will not lose more than \$100 million. Of course, this is based on what has happened in the past. [...] The problem with VaR and similar measures is that it ignores what can happen 1% of the time.” (Friedman and Friedman, 2009, 26). Moreover, the evolution of bank models, from Buy and Hold (B&H) to Originate to Distribute (OTD), has removed the fundamental role of monitoring also because of the conflict of interest expressed by rating agencies. This new model – expression of the new equity culture of banks – together with the securitization process have been not about risk spreading, rather they have been a key part of the process to drive revenue, the return on capital and the share price higher. In other words, they have been more about increased risk taking and up-front revenue recognition (Blundell-Wignall *et al.*, 2008).

In such a way, the model of corporate governance has marked the strategic and managerial weakness of big corporation that is heavily exposed to the bankruptcy risk. This is confirmed by the following table:

	<i>Write-downs</i>	<i>Capital Infusions</i>	<i>Leverage</i>	<i>CDS Ago 2007</i>	<i>CDS dic 2008</i>
<i>Merry Lynch</i>	-40,5	20,8	31,9	225	439
<i>Citigroup</i>	-47,9	81,2	19,3	247	1676
<i>UBS</i>	-34,7	23,8	52	289	2123
<i>HSBC</i>	-23,7	3,5	17	309	1023
<i>Wachovia</i>	-68,8	7,9	9,8	224	892
<i>Morgan Stanley</i>	-15,3	17,6	33,4	208	1215
<i>RBS</i>	-12,4	35	20,8	345	1608
<i>JP Morgan Chase</i>	-14,5	31,8	12,7	248	619
<i>Lehman Brothers</i>	-11,6	9,9	30,7	207	<i>n.d.</i>
<i>Deutsche Bank</i>	-9,3	4,3	52,5	257	916
<i>Credit Suisse</i>	-10,2	8,7	24,1	229	1056
<i>UC</i>	-3,1	7,2	16,4	345	1168
<i>MPS</i>	-0,4	<i>n.d.</i>	17,3	362	1178
<i>Other European</i>	-8,8	3	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>
<i>Barclays</i>	-4,6	19	37,8	309	1535
<i>Fortis</i>	-6,6	16	22,7	284	708
<i>Societe Generale</i>	-6	8,2	34,3	334	1270
<i>Other Asian</i>	-5,5	8,9	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>
<i>Goldman Sachs</i>	-5,1	14,5	22,4	228	850
<i>BNP Paribas</i>	-4,1	2,6	28,5	352	923
<i>Bear Stearns</i>	-2,3	<i>n.d.</i>	33,5	<i>n.d.</i>	<i>n.d.</i>
<i>Bank of China</i>	-3,1	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>

Table 2: Write-downs, Capital infusions and level leverage in the main international banks. Source: Bankscope, Bloomberg, 2007-2008.

For the future, before we can hope to be able to manage the risks of financial crises more effectively, we have to be able to define and measure those risks explicitly. "Therefore, the first order of business for designing new regulations is to develop a formal definition of systemic risk and to construct specific measures that are sufficiently practical and encompassing to be used by policymakers and the public. [...] The complexity of financial markets is straining the capacity of regulators to keep up with its innovations, many of which were not contemplated when the existing regulatory bodies were first formed. New regulations should be adaptive and focused on financial functions rather than institutions, making them more flexible and dynamic" (Lo, 2008, 1-2).

Toward an International Financial System

The crash of U.S. real estate market was only the spark of the crisis, freeing the pervasive elements of instability that permeated the global financial system. In this context, short term debt played a critical role in amplifying the effects of the crisis, leading financial institutions to settle and devalue the most of their assets in order to satisfy creditors, with the effect of increasing the likelihood of insolvency (Zingales, 2009).

It is clear that the Government must avoid to focus on short term policies, limited to prevent financial institutions from failing and depositors from losing their funds, which often are very expensive for the balance of the State; rather, they should aim at identifying the real causes of problems in order to implement effective and long lasting remedies (Yeoh, 2009; U.S. Government Accounting Office, 2008).

In this vein, we do not have to underestimate the effects of the rescue operations of the financial institutions by governments in term of uncertainty, instability and moral hazard. In many cases, governments have been forced into the role becoming new owners of distressed financial institutions, guarantors of loans and making regulatory adjustment on the run; this condition inspires a series of concerns and doubts, such as: further irresponsibility of the top managers, who could be induced to undertake high-risk investment in the perspective of socializing and transferring the risks of potential losses on tax-payers; uncertainty about the weight of the State in making strategic and managerial decisions (Barucci and Messori, 2009); conflicts of interest arising from the illogical admixture of the roles of controller and controlled.

It follows the necessity to restructure the financial system in order to serve the needs of ordinary people and families (workers, homeowners, tax-payers) and to avoid the pursuit of personal interests. It is not a case that, in the United States, while “the Federal Reserve and the Treasury Department have spent, promised and guaranteed up to several trillions of dollars to try to prevent financial institution from failing [...], the financial system has not restored the flow of credit to the economy where it is most needed.” (Schwartz Center for Economic Policy Analysis, 2009, 12).

At the moment, the financial system in most developed Countries has become bloated and it is too big relative to the size of the real economy. For these reasons, it is necessary to: 1) increase transparency in operations and financial innovations to avoid fraud and other forms of financial malpractice; 2) reduce asymmetric information, conflicts of interest and perverse incentives which led financial actors to take on excessive risk (Crotty and Epstein, 2008); 3) restrict or even eliminate off-balance sheet vehicles – indeed, all risky investment should be moved back onto bank balance sheets and adequate level of capital should be required to support them; 4) limit the level of lending by increasing capital requirements in order to protect bank solvency even during the liquidity crises; 5) encourage the flow of credit to SMEs; 5) reduce pro-cyclicality; these policies must be implemented in the context of greater coordination and cooperation among the countries at global level (Griffith-Jones et al., 2008).

In other words, it is necessary to evolve from the logic of the maximization of profit and of the shareholder's value, to the policy of long term strategies, investment, productivity and profitability. This is possible only as part of a clearer and more structured system, in order to overcome market failures. Furthermore, globalisation needs to harmonize the rule of individual States and to reinvigorate a global discussion of financial regulation (Obadan, 2006).

Therefore, the interdependence and interconnection of markets at international level impose a greater coordination among different countries in order to counter the formation of the so-called shadow banking system (Saccomanni, 2009).

Moreover, we must underline the needs for a reduction of the concentration and for a greater diversification in the bank system. In fact, it is necessary the existence of: specialised institute of venture capital to finance the economy effectively; smaller banks focused on the needs of SMEs; big financial institutions that operate at international level, but under much more significant and harmonic regulation. Another problem is that these big banks have become too big too fail and this creates perverse incentives for excessive risk taking. "The taxpayer bears the loss, while the bondholders, shareholders, and managers get the reward. It also distorts the marketplace in another way: as we have noted, there are hidden subsidies (which have been increased in the current crisis), for instance in deposit insurance, in the government-provided explicit guarantees to newly issued bonds, and in the implicit guarantees to bondholders and shareholders associated with the bail-outs." Furthermore, "preventing banks from becoming too big to fail, and intense regulation of these too big to fail institutions, is not the only thing that is needed. We need a Financial Product Safety Commission to assess which financial products are safe for use by consumers – and for what purposes. But this Commission will help in addressing the problems of the too big to fail banks as well. It will take risk out of the system; these banks will not be able to buy up big packages of financial products that have a high risk of non-payment. We need strong regulation at the bottom of the pyramid to complement the strong regulation at the top." (Stiglitz, 2009, 1-4).

The systemic nature of the crisis emphasises the needs for a process leading to the creation of both a System of international governance (may be the Global Legal Standard) through the definition of common principles and regulation, and national and supranational institutions with the role and the power of control and intervention on the international players of markets (Federico et al., 2009).

As it has emerged from the last G-08 and G-20 meetings, the orientation of international partners is to move towards a new order, a real new international financial system, where the stabilisation of financial system does not pass only through the bodies created in Bretton Woods, but through the endowment of new rules and new structures. In particular, the Government of this system should aim at stabilizing the factors which have been at the basis of the current crisis and guiding the different national and supranational institutions; supranational institutions should play the function of coordinating the actors of financial markets and preventing systemic instability; national institutions should play the role of supervision and monitoring the activities carried out in the different countries. It is also necessary to establish concrete procedures for an effective international cooperation which enables the application of this regulation (Attali, 2009).

In this perspective, for instance, the European Council urges the introduction of a new supervisory framework, with the creation of a European Committee for systemic risks, that will monitor and evaluate the potential threats to financial stability and, if necessary, will issue reports of risk and recommendations for action. Then, the European Council has suggested the creation of an European System of Financial Supervisory Authorities, including three new surveillance authority communities (ESA), in order to improve the quality and consistency of national surveillance, strengthen the monitoring of transnational groups through the establishment of colleges of supervisors, and spread a single European code for all financial institutions (Gazzettino Europeo, 2005).

We must underline also the role of central banks as lenders of last resort, in order to counter the crisis and stabilize the markets when this occurs. As the Great Depression and the current financial crisis demonstrate, the monetary policy of the central banks influence duration and depth of crises: while in 1929, central banks did not play an active role, today they "have arguably more flexible monetary policy frameworks, thanks particularly to a less rigid global

exchange rate regime. Some central banks have already shown an aggressiveness to act that was notably absent in the 1930s" (Reinhart and Rogoff, 2009).

Financial innovations have spread the vain illusion of being able to diversify and reallocate every form of risk and, hence, to support ever-increasing financial activities with a small capital (D'Arista and Griffith-Jones, 2008). Differently, there is a need for adequate capital requirements to support all risky investment, and financial institutions, especially those that operate within the shadow banking system, must be brought under adequate regulatory control that limits the level of leverage and demands absolute transparency in operations (Apanard, 2009).

On the other hand, these measures must be defined and introduced in order to avoid to block innovation and tighten up the financial system (Shiller, 2005).

However, for any serious regulation reform to work at least two conditions must be met. "First, financial institutions must come under much more significant regulatory oversight that demands absolute transparency in operations to avoid fraud and other forms of financial malpractice. Second, the financial regulatory institutions" or the Government of the New International Financial System "must have the capacity, authority and desire to implement and enforce these regulations. They need to be insulated from political money and special interest interference; this requires further reforms in election finance." (Schwartz Center for Economic Policy Analysis, 2009, 15).

Moreover, as the current crisis has amply demonstrated, the aim of achieving a trade-off between efficiency and stability within the financial system does not appear easy to get without the harmonization of the regulatory framework at least among the most industrialised countries.

Finally, for any global regulatory reform to work, it must be consonant with the culture and values of the international community (Golinelli, 2005). In other words, to achieve greater efficiency and stability of global financial system, the rules should be adapted to the specific contexts of markets and products in order to reduce the emergence of opportunistic behaviours and other destabilising factors.

CONCLUSION

The current crisis of modern financial capitalism concerns both the system, that despite the experience of 1929, has proved to be not capable for creating transparent and precise rules, and the individuals and their system of categoric values, culture and expectations (Barile, 2008; Barile, 2009).

The morality of managers is a critical aspect to understand the formation of speculative bubbles and crises. Also Adam Smith, in *The Theory of Moral Sentiments*, made it clear that he believed that economic growth depended on morality (Alvey, 1999). In fact, while it is impossible to support the idea of financial markets tending to the equilibrium, it also true that this is mainly due to the orientation to the self-interest, for long time theorized and taught in the main schools of management of the world (Ghoshal, 2005). In this perspective, Howard speaks of tragedy of maximization to define the adverse effects caused by the spread of the culture of maximization of self-interest that in economic and managerial terms means maximization of profit and of the shareholders' value, neglecting the long-term prospects of the company (Howard, 1997).

Finally, the crisis 2007-2008 has clearly emphasized, together with the fragility of global economic system, a crisis of social, personal and political values. Furthermore, the widespread philosophy of the pursuit of self-interest, contrary to the past when it was based on mere ethical and behavioural codes and on various forms of incentives for managers, such as the stock options, requires the translation of the ethical principles into laws, which must be clear and shared at international level.

Moreover, according to the “twelve table” of the OCSE the global nature of the crisis imposes to the Governments the adoption of a systemic approach. In particular, the stability of financial and economic system requires to re-introduce the values of property, integrity and transparency by Governments, firms and other systemic entities which must activate consonant relationships based on the principles of equilibrium, transparency and fairness (OECD, 2009).

However, more regulation is not enough by itself, indeed it is also necessary a change of perspective, that is a change of culture by decision makers who, inspired by the categories of ethics and morality, should find the balance among entrepreneurial and personal interest, on one hand, and collective interest, on the other.

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FINANCIAL CRISIS: ITS EFFECT ON EXISTING BANK-SME RELATIONSHIPS

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Purpose: The value of relationship building is well documented in the literature, where a number of benefits seem to accrue for both interacting parties. This is also the case for Bank-SME relationships. However, the recent financial crisis is expected to have a significant impact on the underlying dynamics of such relationships and as such, this paper models the expected effect and proposes a number of recommendations to reduce the crisis potential effect.

Approach: The paper utilises literature from both banking and finance and relational studies, on the basis of which a conceptual framework is developed and recommendations are proposed.

Findings: Some particular recommendations are discussed relating to various aspects of the relationship itself, including changes in the communication mode as well as changes relating to strategic aspects such as reformulating facets of HRM to enhance the relationship.

Originality/value: The paper addresses a hot topic, in both academic and managerial circles, and offers insights on both the expected effect of the recent crisis on Bank-SME relationships and on actual ways of dealing with the problem. To this end, it integrates different cross-functional management aspects and is therefore expected to be of interest to both academics and practitioners.

Keywords: Bank-SME Relationship, Financial crisis, Retention, Multipurpose teams

Paper classification: Conceptual Paper

INTRODUCTION

Business-to-business relationships unfold within a wider environment and from the interaction of two active parties (Hakansson, 1982; Moller and Halinen, 2000). Consequently, any change in this wider environment, such as the recent financial crisis, is expected to influence the underlying dynamics of existing relationships.

In particular, the banking crisis started by weak and un-uniformly spread regulation in risk management in the derivatives and housing markets. At the same time the lack of liquidity in refinancing deals and the default fear pushed towards a chain reaction in the system creating thus a global scale economic deterioration.

In order to redress the situation most banks looked for capital injection, bailouts or restructuring or selling off part of their units together with complementary redundancy schemes. But very few banks looked also inside their relationship with their customers to boost support to households and SMEs. Many banks reacted in different ways, some wanting to keep corporate customers and get rid of the subprime portfolio.

Hence, how has the recent financial crisis affected the market? There is a possible threefold approach:

1. It affected banks first, through both bankruptcy and liquidations
2. It made many industrial facilities bankrupt
3. It made a large number of SMEs and individuals bankrupt or redundant

Therefore, instead of increasing attention on SMEs as a means of coping with the crisis, the above changes resulted in increased pressure for both the financial institutions and their SME customers, which at many instances, endangered existing relationships. Given, however, the considerable value that exchange relationships can yield for the interacting parties, such an approach can be seen as detrimental to their long-term success.

Consequently, this paper aims to model the impact of the recent financial crisis on the relationship between banks and SMEs, with application to Cyprus and other Euro-Mediterranean countries and to propose a number of recommendations to reduce the potentially adverse effect of the crisis on the exchange relationship. This is largely driven by the acknowledgement of the centrality of exchange relationships on the long-term success of the interacting parties (Wilson, 1995; Christopher *et al.*, 2002), where a plethora of benefits accrue for the dyad. In fact, banking is considered conducive to relationship development (Lovelock *et al.*, 1999), and relationship banking can yield considerable benefits for both the financial institution and the SME; benefits which are exemplified in the case of a financial crisis.

Specifically, on the bank's side, relationships ease the collection of customer information, help in understanding customers better and facilitate loyalty building. That is, reliable information on small and medium-sized enterprises (SMEs) is rare and costly for banks. To compensate for this, relationship banking is often considered as the appropriate lending technique (Baas and Schrooten, 2005). As such, holding a strong portfolio of SMEs can help in achieving scale and scope economies, ultimately enhancing long-term profitability (Reichheld and Sasser, 1990). This is why banks perceive SMEs as a core and strategic business and seem well positioned to expand their involvement with SMEs (de la Torre *et al.*, 2008).

On the other hand, for the SME which is more financially constrained than large firms (Schiffer and Weder, 2001; IADB, 2004; Beck *et al.*, 2005; Beck *et al.*, 2006) and hence, in a worse position to ask for financing during a financial crisis, a positive relationship with their financial institution can reduce perceived risk and uncertainty (Sheth and Parvartiyar, 1995) because the Bank-SME relationship will provide greater assurance that funding will be available even in times of duress (Holland, 1994).

As such, the objective of this paper is to identify the crisis' impact on the Bank-SME relationship and to propose ways to redress the crisis' negative effects - with application to Cyprus and other Euro-Mediterranean countries. To this end, the paper reviews and utilizes literature from two research areas: relational studies and banking theory and finance, and draws a conceptual framework which maps the effect of the recent financial crisis on existing Bank-SME relationships. In conclusion, the paper discusses a number of recommendations, which can potentially reduce the crisis' adverse effect on existing Bank-SME relationships.

LITERATURE REVIEW - CONCEPTUAL FRAMEWORK

The recent financial crisis is postulated to have a profound effect on the interaction pattern of existing Bank-SME relationships, and as such, our conceptual framework models this effect.

The present section discusses the literature employed in designing the conceptual framework. It is divided in three areas: the first explains the potential effect of the crisis on the interaction environment and on each of the interaction parties in isolation, the second maps the effect that the financial crisis creates for the interacting dyad and the section concludes with a discussion of the effect on existing Bank-SME relationships.

Exchange relationships are seen to develop within a wider **environment** (Hakansson, 1982, Kumar and Nti, 1998). In the proposed framework, the environment is conceptualised to

include such aspects as Culture, the Economic environment, the Legal and Regulatory framework (e.g. Central Bank regulations) and the Technological environment (Ioannou and Zolkiewski, 2007). As such, the recent financial crisis has reshaped the environment within which Bank-SME relationships develop and is, therefore, expected to have influenced the underlying dynamics of the particular relationships. Specifically, it is suggested that environmental changes have affected both parties of the dyad. The extent that the crisis has affected each party is as follows:

The crisis' influence on the **bank** is subject to a number of parameters, such as the philosophy and strategy of the bank, the structure of the institution as well as its financial position. In particular, the underlying strategy of the financial institution and hence, the extent of its customer-orientation affect the pattern of interaction (Hakansson, 1982; Odekerken-Schroder *et al.*, 2003) and in periods of economic crisis they are expected to assume a vital role in reformulating the bank's policies.

Put differently, a *bank's philosophy and strategic planning* should grasp the relational concept and debate its medium to long-term strategies as well as the short-term tactics in applying it. This results in an improved relationship which leads to better financial positions and reputation, one of the most important traits in the service. Supporting this strategy, the new Relationship Management (RM) concept should be released towards all stakeholders, with strong emphasis to the employees. Such apprehension is an essential part of building personnel's knowledge and bank behaviour as well as strengthening the bank's mission and vision. In this line of thought, the so-called opaqueness of SMEs^[123], becomes virtually redundant.

Within the umbrella of the bank's philosophy, one needs to also consider the Corporate Social Responsibility (CSR) of the financial institution. Some may look at CSR as "the policy and practice of a corporation's social involvement over and beyond its legal obligations for the benefit of the society at large" (Enderle and Tavis, 1998), while others (Lerner and Fryxell, 1988) suggest that CSR describes the extent to which organizational outcomes are consistent with societal values and expectations. But for simpler people and for the retail business, as an extension, being socially responsible identifies very much with the rationale that businesses are more likely to do well in a prosperous society rather than in a crisis affected one (McIntosh *et al.*, 1998).

There are so many words associated to or replacing CSR, such as: corporate philanthropy, social disclosure, company's environmental record, workforce diversity, financial health and tendency to grow, community involvement, ethical lending, all depending on cross-cultural differences. What it is interesting is that when defining CSR as 'financial health and tendency to grow', Stanwick and Stanwick (1998) provide evidence that profitability of the firm encourages managers to implement programs that enhance the level of CSR.

Apart from the value-significance perspective, the financial perspective is not sufficient to evaluate the level of neither CSR nor any other perspective individually. A company may have outstanding employee benefits but if they go into financial distress, those benefits become null. Instead, strong banks are alleged as more pro-social as they can offer employees more advancement chances (Fombrun, 1998). Considering this normative facet of CSR, it becomes obvious that this concept is of 'no single value state' (Frederick, 1991) in bank RM as well. Moreover, it becomes redundant to consider it a cause or an effect of failing relationship management within financial crises. It could, however, be suggested that during a financial

¹²³ *i.e. unstable economic feasibility – capacity to pay as well as un-appraisable willingness to pay- due to moral hazard.*

crisis banks have a 'moral and social obligation' to support SMEs, since SMEs provide the highest employment level and uphold economic well-being. Therefore, under times of duress, an important aspect of their CSR is the need to nurture Bank-SME relationships.

Further, the crisis effect on the bank is conditioned by its shareholder base. Mergers and Acquisitions have played an active role within the banking market during the past years. For instance, in the Cypriot banking market most banks have a large business exposure to CEE and SEE, hence they work with these markets' local SMEs, and the cultural factor becomes an important ingredient to success. At SME level in Cyprus, there is still a high involvement of RM instead of an arm's length finance or of firm-like organization by market exchange.

Hughes et al. (2003) studying financial consolidation found elements of managerial entrenchment among banks with higher levels of insider ownership, more valuable growth opportunities, poorer financial performance, and smaller asset size. When managers are entrenched, acquisitions are associated with greater inefficiency. For example, following the M&A of Marfin Popular Bank (MPB), it is relocating post-merger its headquarters, downsizing and rethinking its strategies in Cyprus to escape merger diversification (De Long, 2001) to compensate for efficiency loss. Thus teams' combinations do play a key role in keeping RM optimum with their clients, by allocating time and people to service.

Another efficiency model is the one of managerial utility maximization (Koetter, 2006) and the associated measure of risk-return efficiency developed in Hughes et al. (1996, 1999, 2000) of the measure of return efficiency with cost and profit efficiency and found that efficient banks using a low-risk investment strategy are less profitable, since they also expect lower profit. Then, would the adventuring into higher risk bearing relationships with the SMEs, trigger higher risks-higher profit profile of the bank during financial crises?

On the other hand, the crisis' effect on the SME is seen as a function of the nature of the SME's business, its market share and customer composition, its financial position as well as its shareholder's base. Specifically, the economic crisis had a greater impact on certain industries (e.g. automotive, food and beverage, tourism, manufacturing, trading, chemicals & pharmaceuticals) and hence, those SMEs operating in the said markets may encounter bigger financial problems and may require more support from their financial institution. In turn, this affects their interaction with the banks, since on the one hand, they become riskier customers^[124] but on the other, the SMEs expectations vis-à-vis bank performance may rise. In fact, existing literature suggests that small business customers are more relationship-focused than corporate customers (Istock, 1996 in Colgate and Lang, 2005) and hence, are more likely to expect the financial institution to reciprocate in periods of duress.

In addition, the economic crisis has had an effect on consumer behaviour, where a number of retail customers have either withdrawn from the usage of certain products or have switched to lower-priced alternatives. That is, the crisis' impact is distinct for different customers and thus, the profile of the *SMEs customers*, manifested in such ways as who the target market(s) is/are and the degree of customer loyalty (cf. Reichheld and Sasser, 1990) become critical variables. Consequently, coupled with the SMEs nature of business (i.e. type of products traded), the SMEs customer composition and market share have a significant effect on its operational performance and interaction pattern with the bank.

The factors outlined above, will ultimate shape the *financial position of the SME*. That is, the above parameters have a direct impact on the SMEs' operational performance and are likely to

¹²⁴Where the risk level of customers is a determinant attribute when the Cypriot banks assess SME customers (Ioannou and Zolkiewski, 2007).

cause cash flow shortages. This would essentially translate into increased pressure on behalf of the SME for working capital on the one hand, and on the other, a higher perceived risk and uncertainty level for the bank.

Further, if the market is mature or emerging and if the bank went through M&A (e.g. MPB in Cyprus), then the RM can affect both the SMEs activity as well as the bank's structure and efficiency. In such a case, though, it proves interesting to deal with the following factors at the same time:

<i>Factor/Connotation</i>	<i>Local SMEs</i>	<i>Foreign SMEs</i>	<i>Mature Markets vs. Emerging Markets</i>
<i>Fears of default</i>	<i>Strong</i>	<i>Strong</i>	
<i>Reactions to hard (financial) information</i>	<i>Weak</i>	<i>Strong</i>	
<i>Reactions to and soft (managerial or informal) information</i>	<i>Strong</i>	<i>Weak</i>	
<i>Industry independence degree</i>	<i>Weak</i>	<i>Strong</i>	
<i>Attitude change</i>	<i>Strong</i>	<i>Strong</i>	
<i>Opportunities and Threats impact</i>	<i>Medium</i>	<i>Medium</i>	
<i>What is the level of cultural compatibility/match?</i>	<i>Strong</i>	<i>Strong</i>	
<i>What is the level of adaptability?</i>	<i>Strong</i>	<i>Weak</i>	
<i>What is the response during financial crisis?</i>	<i>Strong</i>	<i>Strong</i>	

TABLE 1. Factors and Connotations in RM approach to SMEs (authors' evaluation)

Consequently, at a first level, the financial crisis affects each of the interacting parties and, in turn, the above factors determine the effect that the crisis has on the dyadic interaction. Specifically, the Bank fears that the customer might not be in a position to promptly and consistently meet its financial obligations and may even eventually default; as such, the bank aims to secure itself. Therefore, the extent of pressure that may be exerted by the bank to the SME will depend upon:

- The buying centre of the SME and the Bank employees

The interaction pattern of the dyad is conditioned by their characteristics (Hakansson, 1982). Specifically, the SME's management team and in particular the SME's buying centre on the one hand, and the capabilities and experience of the bank employee(s), on the other, influence the exchange procedure and the communication mode. That is, the profiles of the dyad affect both the content and the quality of the information exchanged (Wilson and Moller, 1998). This is a particularly important consideration since in turbulent periods communication assumes an even more important role in RM.

- Interdependence and Power balance

These are also important elements in relationship development (Dwyer et al, 1987; Wilson, 1995). The conceptual framework postulates that the resulting power balance and interdependence amongst the interacting parties will be conditioned by (a) how important a particular SME is to the bank and (b) whether the bank is the sole financier of the particular SME. These parameters become especially important in periods of duress, where financial institutions could reassess the value of their customers.

In other words, the SME's *profile*, including such aspects as soft elements, cash flow, risk assessment/credit scoring and group affiliation, determine, to a great extent, the attractiveness of the particular customer to the bank (Gronroos, 2000) and hence, the latter's willingness to maintain the relationship.

Specifically, customer creditworthiness is key in any kind of transaction with SMEs. Most of the time, the credit scoring becomes a strong instrument in assessing it. Yet, there are many pitfalls that can show in many mature markets, even companies that look great on paper, but which are a “nightmare” in reality, due to their group affiliation or else. Much information does not reside in the shareholding structure, but in the “supply-side” partners. Other deficiencies often relate to rating SMEs as per Basel II Accord when calculating the bank’s capital adequacy ratio as per the Standardised Approach. This method, mostly used by smaller banks, allows the bank have their customers rated by international rating agencies. These agencies cannot yet mark to market their clients while having different valuation methods for default probability. Here is when the banks start the “rating shopping”, should the SME be a strategic target of the bank (Mihai-Yiannaki, 2009).

Moreover, the attractiveness of the SME to the bank is influenced by the *industry* in which the *SME operates*. In terms of risk diversification, the bank may try to get customers outside its areas of concentrated exposure (either geographical or industrial or transaction related). Yet, there are cases where concentration on temporary healthy business is recommended rather than on diversified losers, even it contradicts some local legislations.

The power balance and interdependence level is also affected by whether the *bank is the sole financier* of the SME or not. Where the SME patronises more than one bank, its comparison level of alternatives^[125], CLalt, (cf. Hakansson, 1982; Anderson and Narus, 1984) may be higher than that of other SMEs which bank only with one institution. Consequently, perceived switching and termination costs (cf. Jackson, 1985) may be greater for SMEs that have a single financier. Thus, on the whole, as Anderson and Narus (1984) suggest, the CLalt has an impact on Power/Dependence.

Conversely, the bank may value more an SME which patronises it on an exclusive basis, and the bank would be more committed in maintaining the particular relationship. Therefore, in periods of duress the bank’s attitude and behaviour may be more favourable for its exclusive SMEs customers.

1. The type of the existing relationship

Blois (1998) stresses that what matters is not whether an exchange relationship exists, but what form that relationship takes. In fact, a number of academics (see for example Turnbull *et al.*, 1996; Wilkinson and Young, 1998), argue that there are different relationships in different situations and thus, it is important to understand the form that the relationship assumes in each situation. The conceptual framework postulates that the financial crisis can affect the existing form of the relationship; in effect, existing Bank-SME relationships may reshape as a consequence of changes in their underlying dynamics. Specifically, changes in the adaptation level and in the increasing need for communication between the dyad, affect relationship variables^[126].

The effect on the existing Bank-SME relationship may emanate from the bank’s fears of customer default and the pressing need to further secure itself. As such, the bank may engage in one or a combination of the following:

- (a) The bank may either impose more rigorous lending terms and conditions or may impose lending restrictions; either way making it more difficult for

¹²⁵ Defined as a standard which represents the quality of outcomes available from the best available relationship partner (Thibault and Kelley, 1959).

¹²⁶ Relationship variables influence success or failure of relationships (Anderson and Narus, 1984; Anderson and Weitz, 1990; Wilson and Moller, 1991; Morgan and Hunt, 1994).

the SME to borrow funds. However, given the possible liquidity problems of SMEs during such periods, this may undermine relational efforts.

- (b) The bank may require more securities, so as to further decrease its exposure. This may be perceived by the SME as a sign of lack of trust on behalf of the bank, which adversely influences their relationship.
- (c) The bank may also pressurise SMEs for savings, which may serve both in improving the bank's liquidity and in reducing its exposure. Again, such an action may negatively impact the existing relationship.
- (d) Increased pricing at periods of duress: Financial deterioration has had an impact on the asset quality of many European Banks, while their interest income has been hurt by falling interest rates set off by the European Central Bank.

Specifically, Baas and Schrooten (2005) show that lack of reliable information leads to comparably high interest rates even in the long-term relationship between borrower and bank. This is also one of the short-term tactics utilized by Cypriot banks during the financial crisis. The reason is retaining larger, more important corporate clients in the detriment of potentially financially distressed SMEs. Here, the banks will reduce their dependencies to potential losses in favour of getting exposure to corporations. At their turn, those corporations depend on SME's activities, yet the latter's bargaining power diminishes during financial crises. What we experience then, is a negative chain reaction at the liquidity level: banks reduce SMEs financing, but keep financing corporations, which ousts from the market many SMEs putting them in financial distress, while themselves cannot cope with the demand drop in the market. The outcome is twofold: either both the banks and corporations get bailout by government, or everyone is drifting away.

Consequently, communication becomes integral, where the bank needs to clearly and sincerely explain to the SME the underlying changes in their relationship. Hence, a further relationship dimension, i.e. openness, becomes critical. In fact the importance of openness in a business-to-business banking context has been revealed by the work of Moriarty *et al.* (1983) and its importance is enhanced in periods of duress.

Moreover, the outlined changes may essentially alter the adaptation level in the relationship. Adaptation is an instrumental factor in relationship building (Axelsson and Easton, 1992 cited in Zineldin and Jonsson, 2000), since "adaptations are the way in which a company shows that it can be trusted to respond to a counterpart's requirements" (Ford *et al.*, 1998) and signal that a supplier is willing to co-operate and make sacrifices. Even though there is as yet no generally accepted definition for adaptation (Brennan *et al.*, 2003), adaptation encompasses investment of tangible and intangible resources by both parties. Investment may be in the form of human resources, development of or alterations in goods/services, production processes and procedures or even investing in transaction-specific investments (Anderson and Narus, 1991). More specifically, in the present context, adaptations refer to such dimensions as flexibility, speed and understanding.

Ultimately, as Ford *et al.* (1998) and Zineldin and Jonsson (2000) suggest, adaptation affects trust and commitment. Trust is a gateway to a successful relationship (Wilson and Jantrania, 1996); it is the building block of a business-to-business relationship (Wilson, 1995) and it creates

the conditions under which commitment develops (Wilson, 1995). Commitment, which is the most commonly used relationship determinant, is the enduring desire to maintain a valued relationship (Moorman *et al.*, 1992). Therefore, in view of the overriding role of trust and commitment in RM (Morgan and Hunt, 1994), it becomes vital to safeguard them, even in periods of economic distress. Failure to do so may prove detrimental to any relational efforts.

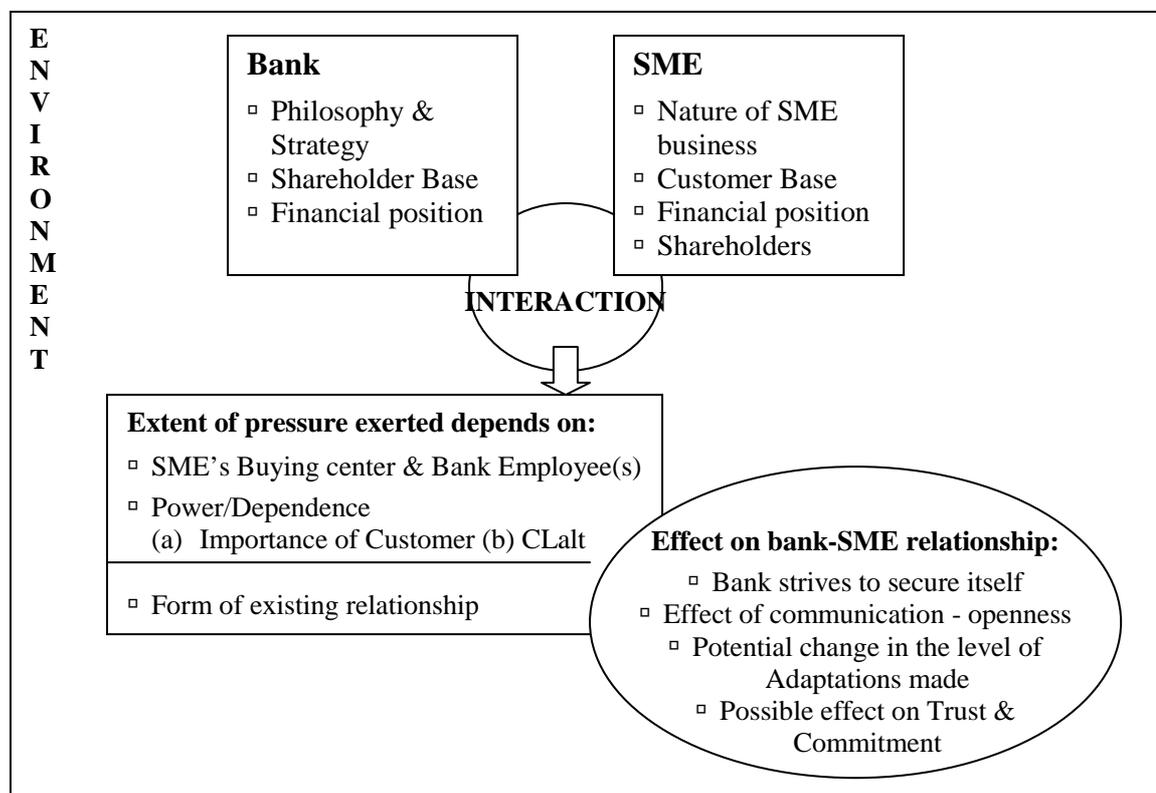


FIGURE 1: Conceptual Framework

RECOMMENDATIONS

The proposed conceptual framework suggests that the financial crisis can alter the underlying dynamics of the Bank-SME relationship. As such, a number of recommendations are discussed below, so as to ensure that the crisis' effect on the said relationships will be the lowest possible.

Firstly, upon specialized knowledge and job description it is possible to see the level of integration of the RM concept within the bank's top-down strategy and identify team and individual motivational tools for driving responsibility and sustainability in relationships with SMEs during the financial crisis. Then utilising HRM concepts, certain tools become key in improving RM:

- Maintain a professional attitude in line with the bank's strategy, i.e. keep the SME connected to the bank, recognize the SME's efforts during the financial crisis, put value to RM. This can be obtained through:
 - i. Bonuses, LTI (long-term incentive) and pay-to-performance
 - ii. Build dedicated teams

iii. Budget reorientation and constraints (creating the best team combination and allocating time in this respect)

- Client retention (through superior employee performance)

Bank Relationship matrix on PAY (employee)-PRICE (product) affects the relationship with the SMEs by improving the selection of companies according to optimum risk-taking appraisal. In such cases, inputs from teams can better evaluate not only risk but also the bank's behaviour towards the SME. In terms of compensation, during financial crisis, it is necessary to fit a more exceptional case rather than a threshold case:

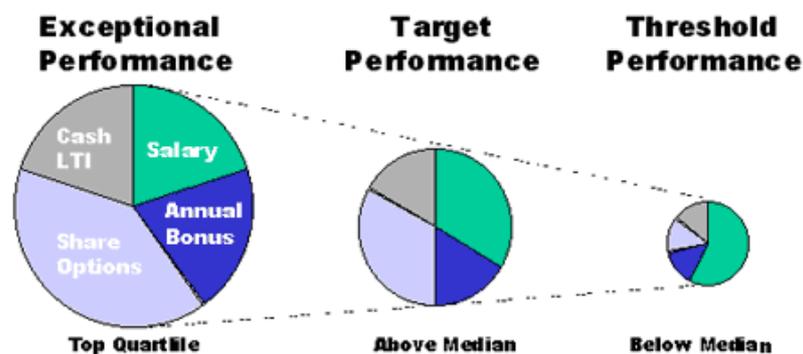


FIGURE 2: Market value measure Trends in shape, size and scope (Cornish and Dell, 2009)

We could analyze base salary; total cash compensation (TCC); total long-term incentive (LTI) values as well as a breakdown by vehicle; total direct compensation (TDC); LTI mix; and TDC mix. In the relationship with SMEs it becomes very difficult to extract the cost/income components in team works though. Such quantifications have improved results on the SME-bank relationship, profitability and durability. Yet, on a whole, the participating team must match the need for calibrating pay to performance, aiming at the top right quadrant.

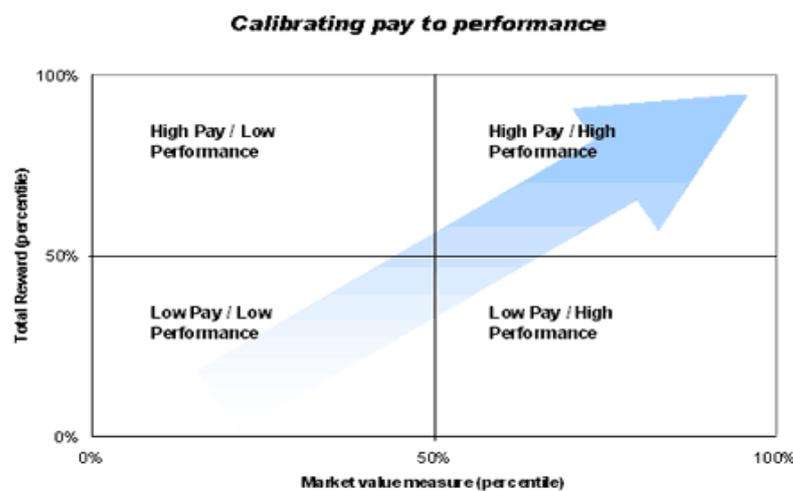


FIGURE 3: Calibrating pay to performance on RM objectives (Cornish and Dell, 2009)

The link between them is the high individual and team motivation. Hence, choice of performance measure is critical. If not thought through carefully, and "audited" regularly, an organisation may be paying the bonus but not rewarding the right business performance.

When considering risk taking as part of the pricing-efficiency model in the context of Bank-SME relationships, building a visible dedicated team to serve SMEs asks for a set of requirements.

<i>Requirements for team assembly</i>	<i>Team key competences</i>	<i>Team minimum composition</i>
<i>Cross-knowledge of culture/language</i>	<i>Language development, behaviour analysis, case studies</i>	<i>Customer Service Desk Loan Officer Treasurer Risk Manger Legal Officer Relationship Manager IT specialist</i>
<i>Information identification</i>	<i>Explore various information sources/channels</i>	
<i>Inside information exchange</i>	<i>Build up trust</i>	
<i>Information processing/ synthesis</i>	<i>Staff training</i>	
<i>Information adaptation</i>	<i>HRM& IT departments involvement</i>	
<i>Information selling to decision makers</i>	<i>Build up dedicated teams</i>	
<i>Price- related information reflection</i>	<i>Standardisation vs. customization in pricing</i>	

TABLE 2. Multipurpose teams serving SMEs

It is important to observe that having good clients makes getting much easier. Yet, clients that are not good enough can improve anytime, yet during financial crisis the chances for "bad" clients to get worse are higher, despite the fact that the market can bounce back.

Using confidential regulatory data on small, closely- held commercial banks, DeYoung et al. (2001) find that banks that hire a manager from outside the group of controlling shareholders perform better than those with owner-managers; however, this result depends on motivating the hired managers with sufficient holdings of stock. Higher levels of insider holdings lead to entrenchment and lower profitability.

Therefore, the bank needs to be proactive: it should educate the SMEs, understand their current situation, including analysing their zone of tolerance (Zeithaml and Bitner, 1996) as well as determining their propensity to default. That is, through the enhanced communication channels, the bank should establish whether, under the new regime, the SME has a positive, cooperative behaviour towards finding mutually beneficial solutions to enhance the relationship (Wilkinson and Young, 1998), or whether it is likely to behave in an opportunistic way (Williamson, 1985 in Zineldin, and Jonsson, 2000),

Put differently, for an RM success strategy in times of financial crisis, there are seven fundamentals of RM development: LEARNER

Leverage: leverage current SME clients to get new ones

Expand: Expand the products and services each client uses, but add and drop products and services in line with the portfolio strategy and keep reassessing clients constantly (client reshuffling).

Assets: Get all of your clients' assets

Retain: Retain your clients by providing extraordinary service

Niche: Develop your niche and natural markets and build a marketing process around them (an RM Tool)

Educate: Educate your client to work with you and the financial products and

Regulate: regulate at both an internal and external level your SME, i.e. create a control and supervision system within the SME department and share your experience with the regulators, the Central Banks.

Out of these fundamentals, one is key in times of financial crisis: Retention. Some general factors affecting customer retention are:

- Portfolio performance consistent with client goals and expectations - a certain degree of satisfaction that can be immediately measured and data stocked and interpreted in time. A combination of client education by the bank on such factors as performance and contact frequency or required level of relationship. Understanding goals and risk tolerance levels come prior to expectations and are key in a long-term RM. Then performance satisfaction depends on the allocation, diversification and a disciplined investment process. In the long run, a conservative approach will outperform a less-disciplined, aggressive investment approach.
- Frequent, proactive contact - not only the clients want to hear from you during this time, but they need your help in the sense of caring, appreciation and actual support. A minimum of two proactive contacts per month is recommended: one for information exchange and another for problem solution.
- Crisis communication tips: plan ahead, constant contact, consistency and engagement in each issue, fast response time, no rumours, total coordination.
- Effective problem resolution-based mainly on communication becomes the most important trait of RM. Any solution should be immediately be released to the client, while any delay should be regularly explained and followed through.
- A broad relationship - the higher the number of products held with the customer the higher the technical probability of client retention as a vote of confidence from the customer.
- Ensuring that the new relationship experience is positive - first impression always counts, not only in new client relationships about also in terms of new products offered to existing clients.
- Team work (specialized on product types, inside and outside from contact-communication and administrative issues, vertical or superstar structure (Mullen, 2008), junior and senior for a succession plan or a mixed team) or reach through someone else system.
- Final step to Client Associate Programmes - the SMEs can participate to the Bank client retention programmes. In this case, the SMEs benefit from large fee and interest rates reduction (based on their participation level to the Bank's client retention), while at the same time the bank can suggest possible clients/suppliers or partners to the SME in strengthening each others' business.
- Build-up upon the Bank's strategy, a RM Control and Supervision system (why, by whom, how often, where)

From the bank's view point, hard information (financial and market ratios analysis) offers a level of probability subsequent to default. For the bank, credit scoring plays an important role

in predicting default. Nowadays, many banks incorporate in the internal credit rating, soft information that usually contributes 40-50% to assessing credit quality (Kornai 1980). Therefore, in many industries and cultures the soft information component prevails to hard information.

Most of the time these areas are associated to emerging markets, but touch mature markets due to globalization. Then, soft information is associated to default especially when the environment allows room for figures manipulations, the timing data procession or delaying procedures, technology or systems, hidden data and attitudes in payment, when there is no repeated relationship or transactions (exception Herstatt Bank case). Hence, often soft information substitutes rather than complements hard information, depending on the depth of the lending relationship.

Further, employees directly involved in RM, can benefit from rotational audit and supervision which could be utilised during financial crisis for reducing person dependency. At the same time the cultural aspect should be kept in mind. Change during financial crisis triggers insecurity, yet a frequent presence of a well-known figure could improve a sustainable rhythm of work.

These, as an outcome of the relational philosophy of the bank, can have a positive effect on key employee performance when dealing with grievances and difficulties that arise from the financial crisis.

In a nutshell, the measures suggested rely on strong commitment on behalf of the bank in nurturing its existing relationships as well as on behalf of the SME. In other words, it is the attitudes of the interacting parties that will determine the future course of their relationship.

CONCLUSION AND FUTURE RESEARCH

It is well documented in the literature that fostering customer relationships can result in the long-term success of an organisation (Wilson, 1995; Christopher et al, 2002). Nevertheless, the conceptual framework presented here, suggests that the recent financial crisis can adversely affect the existing bank-SME relationships: it undermines adaptation and may eventually hinder trust and commitment, two fundamental pillars of relationship building.

Consequently, in view of the above, the present paper discusses a number of recommendations so as to undermine the crisis's effect on the long-term success of such relationships. To this end, it is suggested that special emphasis is placed on the communication mode between the interacting dyad, i.e. communication channels should be improved. In addition, the recommendations draw from the very nature of services, where their unique characteristics (and especially inseparability) make employee performances critical. As such, in periods of crisis HRM becomes even more important, where employees are motivated to enhance performance and retain SMEs. Further, employees are expected to open the eyes and the ears so as to gather soft information on SMEs; this is key in evaluating SME viability. Moreover, the bank's structure and the design and availability of special programmes to help SMEs are important parameters, but it is recognised that existing bank regulation does not necessarily help SMEs.

On the whole, it can be argued that both the conceptual model and the recommendations may be used as a reference point for potentially any European bank involved in RM with SMEs.

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MANDATORY OBLIGATIONS AND VOLUNTARY DISCLOSURE OF ITALY'S LISTED COMPANIES

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INTRODUCTION

Voluntary disclosure is defined as the discretionary release of financial and non-financial information through annual reports over and above the mandatory requirements; it is a term that encompasses the process by which the social and environmental impacts of corporate actions are communicated to stakeholders.

Providing social and environmental information also represents a commitment to accountability, transparency and stakeholder engagement. However, without laws and regulations, the provision of this information is primarily voluntary and dependent on individual corporate determination of what should be reported, how it should be provided and to whom it should be directed.

The social implications of the activities carried out by companies also seem to receive more attention from stakeholders and several countries government.

Recent legislation by the European Commission reflects the mentioned scenario.

This is consistent also with Commission Recommendation 2001/453/EC of 30 May 2001 on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies. However, taking into account the evolving nature of this area of financial reporting and having regard to the potential burden placed on undertakings below certain sizes, Member States may choose to waive the obligation to provide non-financial information in the case of the annual report of such undertakings.

As a result of the process of accounting harmonization brought about by Regulation no. 1606/2002, the Commission has reconsidered the contents of its Accounting Directives (*Modernisation of the Accounting Directives*). One of the most significant amendments concerns the minimum content of the Management Report, which, in its updated version, allows for disclosure of information also of “*non-economic or financial nature*”. With reference to the process of accounting harmonization involving the mandatory use of IAS/IFRS, the IASB project certainly deserves mentioning. In collaboration with some international standard setters, the IASB project has released a discussion paper entitled “*Management Commentary*” (MC) with the purpose of working out an archetype, similar to a Management Report, for the disclosure of corporate information, particularly qualitative¹²⁷.

Directive no. 2003/51/EC of the European Parliament has established that the information should not be restricted to the financial aspects of the company's business. It is expected that, where appropriate, this should lead to an analysis of environmental and social aspects

¹²⁷ The IASB Framework for the Preparation and Presentation of Financial Statements acknowledges that financial statements are not, of themselves, sufficient to meet the objectives of financial reporting. To bridge the gap between what financial statements are able to achieve and the objectives of financial reporting it may be necessary for the financial reports to include additional information (*las 1, Framework*, paragraph 13).

necessary for an understanding of the company's development, performance or position; hence, the level of disclosure depends on the legal framework.

Each Member State, however, would be responsible for drafting the specific procedures to incorporate the new requirement into national legislation; hence, implementation of Directive no. 2003/51/EC has been occurring across Europe and is a strong case study for how future governance and disclosure legislation will be implemented. In European countries there has been much progress as well.

After the "modernization" of European accounting directives, the Italian Government has adopted Legislative Decree no. 32, 2nd February 2007, which requires to include in the Management Report, where appropriate, non-financial information relating to environmental and employee matters.

Social and environmental issues have become a major concern for accounting research over the past two decades. Social and Environmental Accounting has attracted the attention of a number of researchers attempting to understand, explain and predict the disclosure of information on the social and environmental implications of business activities.

Empirical research has hypothesized that size, profitability and the potential environmental impact of the firm are the main factors explaining the amount of information disclosed, both mandatory and voluntary. On the other hand, several studies have focused on the motivations for disclosing environmental information, hypothesizing that disclosures are aimed at making or sustaining corporate legitimacy.

The purpose of this paper is to examine the impact of legal framework on extent of voluntary disclosure practices of listed companies in Italy.

Hence, this paper provides an empirical analysis of the influence of Legislative Decree 32/2007 on Italian listed firms' disclosure, based on a sample of companies listed on *Italian Stock Exchange*.

CONCEPTUAL FRAMEWORK

This section deals with the empirical studies so far conducted by different researchers on the extent of disclosure of information in the annual reports.

Some studies look at only mandatory information, some look only at voluntary information, and yet others have looked at both mandatory and voluntary information.

On the subject, some Italian scholars (Quagli, Teodori, 2005) make a distinction among *required*, *voluntary* and *mandatory information*, considering the different degrees of discretion (about format, way of explanation and contents) adopted by a company when disclosing.

Hence, disclosure could be classified as follows:

- **mandatory;**
- **required:**
 - discretionary in content, format and communication conditions;
 - discretionary in content and format, but regulated in communication conditions;
 - discretionary in content but regulated in format and communication conditions;

- **voluntary**, defined as the discretionary release of financial and non-financial information through annual reports over and above the mandatory requirements. (Allini, Manes Rossi, 2007).

To determine the extent to which specific items of information are disclosed in corporate annual reports, various approaches have been used by different researchers.

Ahmed and Nichols (1994), Wallace, Naser and Mora (1994) and Wallace and Naser (1995) used mandatory information items while Firth (1979), Chow-Boren (1987), Spero (1979) and Hossain et al. (1994) used only voluntary information items in their studies. Singhvi (1967), Singhvi and Desai (1971), Choi (1973), Barret (1976), Cooke (1989), Karim (1996), Hossain (1998), included both mandatory and voluntary information items in their studies (Ahmed, 2006).

The number of items included in a disclosure index varies from study to study. In most of the studies, a disclosure index has been prepared in order to measure the extent and level of disclosure in the annual reports based either on a user's survey or on a search of corporate reporting literature.

In some studies, the disclosure index has been prepared by surveying a sample of users to determine the user's perception of the important items of information to be reported in the annual report, as well as the weight to be assigned to the items of information incorporated in the disclosure index, while in other studies, the weight has been given based on the researcher's own subjective assessment (Barret 1976 and 1977, and Marston, 1986).

On the other hand, some researchers like Kahl and Belkai (1981), Cooke (1992), Alam (1989), Ahmed and Nicholls (1994) and Karim and Chowdhury (1998) have used the unweighted index and a dichotomous procedure in which an item score is one if disclosed and zero if not disclosed.

Some studies stress the adequacy of total disclosure based on a checklist consisting of mandatory and voluntary disclosure items.

The number of items included in various disclosure indices generally range from 10 to 289. It means that the concept of adequate disclosure varies across researchers.

There are researchers who have measured the extent of disclosure longitudinally to determine whether the quality of disclosure has improved over time, whereas, most of the studies have focused on only one year. The number of companies included in the samples in those studies varied from 14 to 527.

Moreover, a variety of studies concerning voluntary disclosure (e.g. Atkinson, 1997; Eccles et al., 2001; Epstein and Birchard, 2000; Gray, 2002; Healy and Palepu, 2000; Jaggi and Low, 2000) and institutional guidelines (GBS, 2001; GRI, 2002; ISEA, 1999, OECD, 2001) can be used to classify, record and evaluate the information contained in the voluntary disclosures made by a listed firm as a part of its stakeholder management effort. Listed companies have real strategies to compete for attract potential investors interested in choosing convenient investment model. In determining the most convenient investment opportunities, investors are essentially driven by performance indicators, risk management, transparency and level of disclosure (Galeotti, 2008; Azzali, 1996; Stone, 2007).

Mainstream literature on voluntary disclosure has focused on quantity and then used that aspect as a sound proxy for the quality dimension of disclosure. Some researchers (Beretta, Bozzolan, 2006) propose simple quantity-quality indices based mainly on a dichotomous score

(Marston & Shrivies, 1991; Sinhvi & Desai, 1971; Zarzeski, 1996). Others hoping to differentiate quality, adopt weighted indices of disclosure, subjectively assessing the weight to be attributed to each item disclosed (Botosan, 1997; Wallace, 1988; Wallace & Naser, 1995) or to the type of measure associated with the information disclosed (Guthrie, Petty, Ferrier, & Wells, 1999).

Many empirical studies have demonstrated that the level of disclosure is highly influenced by *size* and *industry* (Ahmed & Courtis, 1999; Belkaoui & Kapik, 1989; Cooke, 1992; Firth, 1979; Healy & Palepu, 1994; Richardson & Welker, 2001; Robb et al., 2001). For this reason we contend that an absolute index (e.g., the number of phrases containing voluntary disclosure) is not adequate to appreciate the relative quantity of disclosure made by any company. Instead, to investigate the overall amount of disclosure made by any single firm we computed a *relative index* of disclosure for each company. The relative index quantifies the increment in the level of information each firm disclosed in its management report before and after the date of the Decree. Appendix 1 presents the classification scheme proposed.

RESEARCH METHODOLOGY

The research has been designed to test the impact of a legal framework (legislative Decree 32/2007) on the level of environmental, social and risk management informations disclosed by Italian companies, but recognises that many other factors may play a part. Instead of engaging in either a longitudinal study or an in-depth study of a large number of companies, the approach is one of using a small sample as a pilot to provide indicators of further research. Hence the empirical evidence is exploratory rather than definitive.

In this study, content analysis was employed to collect the necessary data. Content analysis is defined as “the method of a research technique for the objective, systematic, and quantitative description of the manifest content of communication” (Berelson, 1971). It is usefully defined by Abbot and Monsen (1979), as: “A technique for gathering data that consists of codifying qualitative information in anecdotal and literary form into categories in order to derive quantitative scales of varying levels of complexity”.

The content analysis approach employed assumed that the content categories identified in the written messages of annual reports had manifest meanings (e.g. environment) that could, therefore, be categorized. (Krippendorff, 1980) (Guthrie and Parker, 1990). Hence, content analysis has been widely employed in studies on annual reports in the areas of corporate social and environmental reporting (for example, see Guthrie and Mathews (1985), Guthrie and parker (1990) and Hackson and Milne (1996)) although it is less common in the more conventional areas of accounting research (Gray et al., 1995a).

Prior studies have measured the disclosure in different units, i.e. number of sentences, words and pages (Hackson and Milne, 1996; Zeghal and Ahmad, 1990). We have adopted number of sentences in our analysis as it is adopted in the Hackson and Milne (1996) study and supported by Milne and Adler (1999). They considered number of sentences both as the most appropriate measure of disclosure, and also as the most appropriate basis for coding and analysis. Variability in sentence length was not considered a factor affecting the analysis of content from a coding perspective (ibid). The use of ‘word’ as a unit of measurement is difficult because interpretation of individual words out of context may result in differences of meaning (Unerman, 2000). Use of sentences overcomes this and removes some of the judgement required. They will also provide the means of determining whether there appears to be any variations in disclosure practices.

The use of page size also has some difficulties because of differences arising from font size, margins, graphics etc. and even with the use of a grid presents problems of comparability (Wilmshurst and Frost, 2000).

We used a disclosure index based on number of items disclosed by a sample of listed companies.

DEVELOPMENT OF HYPOTHESES

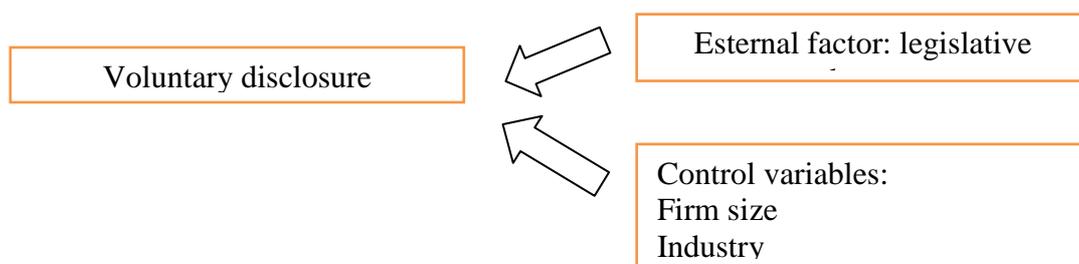
The improvement of mandatory disclosure may have a relationship with the size and the industry type of the listed companies. Moreover, the listed company may disclose more information than the smaller one for a variety of reasons. We test if the level of compliance influences the level of voluntary disclosure. Hence, we tested the following hypotheses:

Hp1: regardless of size or industry type, the listed companies provide more information in their annual reports than the regulations require.

Most of the literature on voluntary disclosure considers it as the only available disclosure, and ignores the existence of mandatory disclosure.

However, unless there is no correlation between mandatory and voluntary disclosures, mandatory disclosure may influence the incremental informational content for investors of voluntary disclosure. Hence, mandatory disclosure might be a key determinant for discretionary disclosure strategies of managers, as well as for the total level of disclosure in capital markets.

Research Model



DATA SOURCES

This assurance to stakeholders requires that corporations communicate their activities. Environmental, social and risk management informations may be disclosed in a variety of ways: reporting media, such as newsletters, bulletins, media releases, annual reports, management commentary reports and Internet homepages as well as stand-alone environmental reports. This makes the identification of a complete set of information (both for researchers and for stakeholders) very difficult.

The annual report is widely recognised as the principal means for corporate communications of activities and intentions and has been the source for virtually all previous corporate research (Wiseman, 1982).

In addition, the corporate annual report is seen as an important device for financial communication between management and shareholders (Barlett and Chandler, 1997), it's an important channel by which corporations can communicate with interested stakeholders and it's considered to be a logical medium for communicating corporate attempts at legitimization of environmental activities (Savage, 1998). Gray et al. (1995b) also suggested that the annual report is the major medium for a company to promote itself and the inclusion of other information with the financial information may indicate its relative importance.

Wilmshurst and Frost (2000) argue that the annual report is a statutory report incorporating both statutory and voluntary disclosure, which is produced regularly and can be easily accessed. Tilt (1998) also argued that an annual report is produced on a regular basis by all companies, thus making comparisons relatively easy. Finally, it is found that corporations are increasingly using their annual reports to disclose information about their social actions, particularly those relating to the natural environment (Savage, 1998; Savage and Cataldo, 1999).

This study will focus on the disclosures in management commentary reports.

SAMPLE SELECTION

The research took the form of a pilot study to investigate the effect of the regulatory framework on disclosure practices. The sample selection is drawn from firms listed on the Italian Stock Exchange (*Borsa Italiana Spa*) which organises and manages the Italian stock market. Main responsibilities of *Borsa Italiana* are to:

- oversee transaction activities;
- define the rules and procedures for admission and listing on the market for issuing companies;
- define the rules and procedures for admission for intermediaries;
- supervise listed companies' disclosure.

A sample of 30 listed companies was randomly selected from the population of companies listed on. The sample comprises only industrial and commercial firms; listed financial companies (e.g., bank and insurance companies) were excluded because of their specific disclosure requirements, specialized nature of operations and financial characteristics. This is based on the argument that the nature of a company's industry has been identified as a factor potentially affecting corporate social disclosure practices (Gray et al., 1995a). Companies whose economic activities directly modify the environment are more likely to disclose information about their environmental impacts than are companies in other industries (Hackston and Milne, 1996; Adams et al., 1998). In addition, the environmental sensitivity of the industry has been argued to influence the level of environmental reporting (Deegan and Gordon, 1996). The control variables (firm's size and industry type) used in this study will help to test the influence of decree on level of voluntary disclosure. Consequently, the industry groups selected in our study are: consumer goods and services; light and industrial manufacturing; water, energy, chemicals and drugs; food and beverages; high technology; heavy industry. The survey of

annual reports covers companies, which published their annual reports during the period ending between December 31, 2007 and December 31, 2008; two consecutive years immediately before and after the introduction of Legislative Decree no. 32, 2nd February 2007.

It is recognised that a small sample size and an analysis of two year's information has a risk of aberrance, but the results were to be indicative, and further studies would reveal whether this study could be replicated.

EXPERIMENTAL VARIABLES

We classify voluntary disclosures into three groups: strategic, nonfinancial and financial information. Most of the previous (theoretical and empirical) literature has tended to treat voluntary disclosures as somewhat amorphous. However, it is likely that the decision-relevance of information varies by type. Strategic and financial types of information have obvious decision relevance to investors and are widely discussed in the literature. Nonfinancial information is directed more toward a company's social accountability and is aimed at a broader group of stakeholders than the owners/investors. Thus, the variables affecting disclosure choices by companies probably vary by type as well. We view this refinement as a major improvement over prior studies.

Voluntary disclosure is an abstract concept that cannot be measured directly. Nevertheless, we concede that a suitable proxy such as an index of disclosure can be used to gain insight into the level of information disclosed by companies.

Three steps were taken to develop the index of discretionary items.

SCORING THE DISCLOSURE ITEMS

There are two main approaches to developing a scoring scheme to capture levels of disclosure. The approach advocated by Copeiand and Fredericks (1968) is to use a criterion based on the presentation of information. They cite the number of words used to describe an item disclosed. Such an approach leads to a scale of disclosure which varies between zero and one.

However, the allocation of scores along the continuum is somewhat subjective.

The alternative approach, and that adopted in this study, is to use a dichotomous procedure in which an item scores one if it is disclosed and zero if it is not disclosed. We based on the disclosure index used in earlier studies (Gray, Meek and Roberts 1995; Cooke, 1989; Chow and Wong-Boren, 1987; McNally, et al. 1982; Firth 1979) a preliminary list of 110 items was generated. The list was then updated by referring to the Italian regulatory in order to derive an index of discretionary items. Some items were dropped from the list because, after the Decree, they were found to be mandatory disclosure requirements.

After the index was subject to these revisions, a final list comprising of 95 discretionary items was compiled. Approximately 70% (67) of the discretionary items are similar to those selected by Gray et al. (1992). After establishing the disclosure index, a scoring sheet was developed to value the extent of voluntary disclosure. If a company disclosed an item of information included in the index it received a score of 1, and 0 if it is not disclosed (see Cooke, 1989, p. 182).

Both weighted and unweighted disclosure indices have been used. The disclosure indices constructed to measure the quality and extent of disclosure vary considerably from study to study.

The disclosure index created by this means is unweighted and assumes that each item of disclosure is equally significant. We consider that unweighted indices are a suitable research instrument in disclosure studies.

Furthermore, the weighted indices are subject to general criticism in the literature. Chow and Wong- Boren (1987, p. 536), argue that a great deal of subjectivity exists in the assignment of weights because it reflects the perceptions rather than actual information needs of the users of financial reports. For this reason, an unweighted index was considered to be appropriate for the aim of this paper.

The final checklist consists of eighty-five items of information (see appendix A). They are categorized into three major groups of information types and, further, into twelve subgroups:

(a) Strategic information:

- (1) general corporate characteristics,
- (2) corporate strategy,
- (3) acquisitions and disposals,
- (4) research and development,
- (5) future prospects information;

(b) Nonfinancial information:

- (6) information about directors,
- (7) employee information,
- (8) social responsibility and value added disclosures;

(c) Financial information:

- (9) segment information,
- (10) financial review information,
- (11) foreign currency information,
- (12) stock price information.

The increase of voluntary disclosure items, except those becoming mandatory immediately following the introduction of the decree, has been indicated using 0-1 dummy variables, respectively, depending upon whether or not the item "state" was changed during the analysis period.

Finally, for each item in the disclosure index, a firm receives a score of "1" if it voluntarily discloses information on the item and "0" otherwise.

For each company, the disclosure index (ID) is calculated as the difference between the number of items disclosed by company x in its management report in year 2008 and the number

of items that the company x has disclosed in its management report in year 2007, divided by the total number of items disclosed by company x in its 2007 report.

Disclosure index was computed by using the following formula:

$$(DI) = (a - b)/b$$

where:

a = number of information items disclosed by each listed company in 2008 management report;

b = number of information items disclosed by each listed company in 2007 management report.

CONTROL VARIABLES

Firstly, we assessed whether the introduction of Legislative Decree 32/2007 produced an increase in the level of disclosures contained in the management commentary report. Control group method was used to test for association between the improvement in corporate disclosure levels and decree implementation. This method compares to an experimental group in a test of a causal hypothesis. If the suspected causal agent is actually a causal factor of some event, then logic dictates that event should manifest itself more significantly in the experimental than in the control group. For example, if "A" causes "B", when we introduce "A" into the experimental group but not into the control group, we should find "B" occurring in the experimental group at a significantly greater mean than in the control group. Significance is measured by relation to chance: if an event is not likely due to chance, then its occurrence is significant.

Two variables are introduced as control variables in the analysis:

1. firm size
2. industry type

These variables are used to test the hypothesis *HP1*. Two subsamples are drawn from the initial sample on the basis of the control variables. In other words, subsamples were selected in two steps:

- the first step consisted of constructing two subsamples of companies selected on the basis of *firm size*; the first one includes small size firms, the other one includes large size firms;
- in the second step of the selection procedure, six subsamples of firms are selected from our sample on the basis of *industry type*.

To test the hypothesis *HP1*, in our analysis, the main samples mean is compared to control variables subsets mean.

The improvement of mandatory disclosure may have a relationship with the size of the companies. Moreover, the larger company may disclose more information than the smaller one for a variety of reasons. Again, the size of a company may be measured in different ways such as through sales turnover, total assets, capital employed, number of employees. In this study,

to better examine the effect of legal framework on voluntary segment disclosure, our analyses control for other factors that may affect the levels of voluntary disclosures:

In almost all disclosure studies, company size has featured as an important determinant of disclosure levels (Belkaoui-Riahi, 2001; Chow and Wong-Boren, 1987; Lang and Lundholm, 1993; Owusu-Ansah, 1998; Singhvi and Desai, 1971; Wallace and Naser, 1995; Wallace et al., 1994; Watson et al., 2002).

For this study, number of employees was used as a proxy for size. Number of employees was preferred over other proxy measures because the focus of this study was on stakeholder management efforts of a company, and for a company having larger number of employees it would be more important to manage the relationship with employees as a stakeholder group.

Revenue or total sales, one can argue may not be an appropriate measure since many companies (especially high technology companies) with relatively few employees could have large sales and revenue. Data for number of employees was obtained from annual reports.

Industry type also affects disclosure choices particularly when the reported information is specific to the firm itself and not common to the industry. Haven et al. (2002) show that high-tech firms voluntarily disclose information because, investors might not expect their future earnings easily. Consequently, firm value is subject to large price fluctuations. Furthermore, Wallace et al. (1994) and Kasznik and Lev (1995) suggest that industry effects could explain the different levels of disclosure among firms. Industry dummy variable is therefore included in this study to control for the industry effects.

EMPIRICAL EVIDENCE

This paper examines the patterns in voluntary environmental disclosures made by a sample of around 30 listed firms drawn from a diverse range of industrial sectors. The results show an average increment of 33,98% in voluntary disclosure level. The three major groups of information types showed in the table n. 1 are:

- (a) Strategic information
- (b) Nonfinancial information
- (c) Financial information

listed companies	2007				2008				delta 2008-2007
	a	b	c	sum	a	b	c	sum	
1	4	4	8	16	5	6	9	20	25,00%
2	8	6	4	18	8	6	5	19	5,56%
3	4	7	8	19	4	8	9	21	10,53%
4	2	0	16	18	2	4	16	22	22,22%
5	2	2	0	4	2	4	1	7	75,00%
6	2	5	0	7	2	7	1	10	42,86%
7	4	3	6	13	4	4	6	14	7,69%
8	2	2	4	8	7	2	4	13	62,50%
9	8	0	8	16	8	0	8	16	0,00%
10	4	2	2	8	3	8	5	16	100,00%
11	4	4	2	10	5	4	3	12	20,00%
12	2	0	4	6	2	1	5	8	33,33%
13	4	0	2	6	4	0	2	6	0,00%
14	2	2	2	6	2	4	1	7	16,67%
15	2	2	2	6	6	2	3	11	83,33%
16	4	2	2	8	4	4	2	10	25,00%
17	7	3	4	14	7	2	4	13	-7,14%
18	1	3	5	9	2	2	6	10	11,11%
19	5	7	3	15	5	8	7	20	33,33%
20	4	7	12	23	2	4	6	12	-47,83%
21	8	4	0	12	3	4	2	9	-25,00%
22	2	0	2	4	1	3	5	9	125,00%
23	2	4	2	8	3	4	3	10	25,00%
24	2	6	0	8	2	6	1	9	12,50%
25	0	3	0	3	1	4	3	8	166,67%
26	2	0	2	4	2	2	3	7	75,00%
27	2	2	0	4	2	3	1	6	50,00%
28	0	5	2	7	2	7	2	11	57,14%
29	1	5	3	9	1	5	2	8	-11,11%
30	2	2	0	4	2	3	0	5	25,00%
	96	92	105	293	103	121	125	349	33,98%

Table 1: The disclosure index

The results in Table 1 provide that voluntary disclosure items concerning non-financial information (b) improved after the introduction of Decree; this improvement appears to be a particularly interesting. In fact, increment rate of voluntary disclosure items concerning non-financial information (b) is 32%, the highest increase recorded in the study period. Although a significant increase in the number of items recognizing compliance with environmental regulations is reported, many firms simply stated that they were in compliance before the new regulation.

To test the hypothesis Hp1, we compared the main samples mean to subsample mean.

Scanning Table 2, listed firms size is not important in explaining the voluntary disclosures of different types of information. The table reports two subsamples. selected on the basis of firm size; the first one includes small size firms with number of employee under 1200, the other one includes large size firms.

Listed firms size doesn't appear to be significant in explaining the variability in the extent of voluntary disclosure for our samples of firms.

Size			
<1200	disclosure increment rate	>1200	disclosure increment rate
2	5,56%	1	25,00%
3	10,53%	4	22,22%
6	42,86%	5	75,00%
7	7,69%	8	62,50%
11	20,00%	9	0,00%
15	83,33%	10	100,00%
17	-7,14%	12	33,33%
19	33,33%	13	0,00%
21	-25,00%	14	16,67%
22	125,00%	16	25,00%
23	25,00%	18	11,11%
24	12,50%	20	-47,83%
26	75,00%	25	166,67%
27	50,00%	28	57,14%
30	25,00%	29	-11,11%
Min	-25,00%	Min	-47,83%
Max	125,00%	Max	166,67%
subsample mean	32,24%	subsample mean	35,71%
sample mean	33,98%	sample mean	33,98%
standard deviation	0,4475	standard deviation	0,5148

Table 2

In effect, the difference between the disclosure average of main sample and the disclosure average of subsample is not significant.

Industry doesn't appear to be influential in this study. Although Companies in the oil, chemicals and mining industry seem particularly inclined to provide non-financial information, such as those related to the environment, perhaps reflecting greater sensitivity toward social accountability issues. Industry is also related to disclosures of financial information. However, seem there is little variation in the increment of voluntary across industry sub groups.

The industry influence is more pronounced than it is for nonfinancial information in that two industry categories are significant (heavy industry and high technology).

It is possible that voluntary disclosure in one sector of the economy may be higher than in another sector. The increment rate in disclosure recorded in heavy industry subsample, for example, may be due to the existence of a dominant firm with high levels of voluntary disclosure leading to a bandwagon effect and to an industry characteristic that impacts on environmental.

The amount of variability in disclosure explained by the size and industry type measures, although statistically significant, is not large; the difference between main sample disclosure average and subsample disclosure average is not significant. This result suggests that other explanatory factors, such as legal framework, which is the variable included in this initial analysis may have an important role to play in improving the explanatory power of the model.

Industry											
Heavy industry	disclosure increment rate	Water, energy, chemicals and drugs	disclosure increment rate	Consumer goods and services	disclosure increment rate	Light and industrial manufacturing	disclosure increment rate	High technology	disclosure increment rate	Food and beverages	disclosure increment rate
5	75,00%	6	42,86%	1	25,00%	10	100,00%	2	5,56%	15	83,33%
14	16,67%	13	0,00%	3	10,53%	12	33,33%	4	22,22%	16	25,00%
18	11,11%	17	-7,14%	9	0,00%	20	-47,83%	7	7,69%	19	33,33%
21	-25,00%	26	75,00%	11	20,00%	27	50,00%	8	62,50%	23	25,00%
25	166,67%	28	57,14%	22	125,00%	30	25,00%	24	12,50%	29	-11,11%
Min	-25,00%	Min	-7,14%	Min	0,00%	Min	-47,83%	Min	5,56%	Min	-11,11%
Max	166,67%	Max	75,00%	Max	125,00%	Max	100,00%	Max	62,50%	Max	83,33%
subsample mean	48,89%	subsample mean	33,57%	subsample mean	36,11%	subsample mean	32,10%	subsample mean	22,09%	subsample mean	31,11%
sample mean	33,98%	sample mean	33,98%	sample mean	33,98%	sample mean	33,98%	sample mean	33,98%	sample mean	33,98%
standard deviation	0,7496	standard deviation	0,3586	standard deviation	0,5060	standard deviation	0,5332	standard deviation	0,2348	standard deviation	0,3387

CONCLUSION, LIMITATIONS AND IMPLICATIONS OF THE RESEARCH

This study investigates whether the introduction of Legislative Decree no. 32, 2nd February 2007, had increased the level of voluntary disclosure. We derive some preliminary conclusions from the analysis made by using the proposed framework.

Our results suggest the following implications.

First, listed Italian companies, regardless of size or industry type, provide more information in their management commentary reports than the regulation requires in the two-year period of study.

In conclusion, it could be said that the improvement in the quantity of mandatory items disclosed by listed Italian firms may influence their level of voluntary disclosure.

However, whatever may be the variables and method of analysis, the disclosure index can provide a useful tool for measuring disclosure adequacy and practices if the results obtained from it are balanced by qualitative analysis. Little attention has been paid in the extent literature to the semantic properties of information. We contend that, in the analysis of the disclosure made by listed companies, attention has to be paid not only to how much is disclosed but also to what is disclosed and how. This is the purpose of our future studies.

Moreover, the study is based on the voluntary and mandatory disclosures before and after the legislative decree n. 32, which makes this study restrict to two-year period. The size of the sample used in this study is relatively small. Given these limitation, future research should attempt to revisit these aspects of this study.

Moreover, the study is based on the voluntary and mandatory disclosures before and after the legislative decree n. 32; hence, it has used a short observation window—only a two-year period which may lead to deceptive results. The size of the sample used in this paper is relatively small. Given these limitations, future research should attempt to revisit these aspects of this study and may focus too much attention on the quality of the additional information disclosed by the companies as a result of the implementation of legislative decree n. 32.

APPENDIX A

[Voluntary Disclosure Checklist](#)

Strategic information

1. General Corporate Information
 - 1 Brief history of company
 - 2 Organizational structure

2. Corporate Strategy
 - 3 Statement of strategy and objectives - general
 - 4 Statement of strategy and objectives - financial
 - 5 Statement of strategy and objectives - marketing
 - 6 Statement of strategy and objectives - social
 - 7 Impact of strategy on current results
 - 8 Impact of strategy on future results

3. Acquisitions and Disposals

9 Reasons for the acquisitions

10 Reasons for the disposals

4. Research and Development

11 Corporate policy on research and development

12 Location of research and development activities

13 Number employed in research and development

5. Future Prospects

14 Qualitative forecast of sales

15 Quantitative forecast of sales

16 Qualitative forecast of profits

17 Quantitative forecast of profits

18 Qualitative forecast of cash flows

19 Quantitative forecast of cash flows

20 Assumptions underlying the forecasts

21 Current period trading results - qualitative

22 Current period trading results - quantitative

23 Order book or backlog information

Nonfinancial information

6. Information About Directors

24 Age of the directors

25 Educational qualifications (academic and professional)

26 Commercial experience of the executive directors

27 Other directorships held by executive directors

7. Employee Information

28 Geographical distribution of employees

29 Line-of-business distribution of employees

30 Categories of employees by gender

31 Identification of senior management and their functions

32 Employees' picture

33 Reasons for changes in employee numbers or categories

34 Amount spent on training

- 35 Nature of training
- 36 Categories of employees trained
- 37 Number of employees trained
- 38 Data on accidents
- 39 Cost of safety measures
- 40 Redundancy information (general)
- 41 Equal opportunity policy statement
- 42 Recruitment problems and related policy

8. Social Policy and Value Added Information

- 43 Safety of products (general)
- 44 Environmental protection programs - quantitative
- 45 Charitable donations (amount)
- 46 Community programs (general)
- 47 Value added statement
- 48 Value added data
- 49 Value added ratios
- 50 Qualitative value added information

Financial information

9. Segmental Information

- 51 Geographical capital expenditure - quantitative
- 52 Geographical production - quantitative
- 53 Line-of-business production - quantitative
- 54 Competitor analysis - qualitative
- 55 Competitor analysis - quantitative
- 56 Market share analysis - qualitative
- 57 Market share analysis - quantitative

10. Financial Review

- 58 Profitability ratios
- 59 Cash flow ratios
- 60 Liquidity ratios
- 61 Gearing ratios
- 62 Disclosure of intangible valuations (except goodwill and brands)

- 63 Dividend payout policy
- 64 Financial history or summary - six or more years
- 65 Restatement of financial information to non-U.S./U.K. GAAP
- 66 Off balance sheet financing information
- 67 Advertising information - qualitative
- 68 Advertising expenditure - quantitative
- 69 Effects of inflation on future operations - qualitative
- 70 Effects of inflation on results - qualitative
- 71 Effects of inflation on results - quantitative
- 72 Effects of inflation on assets - qualitative
- 73 Effects of inflation on assets - quantitative
- 74 Effects of interest rates on results
- 75 Effects of interest rates on future operations

11. Foreign Currency Information

- 76 Effects of foreign currency fluctuations on future operations - qualitative
- 77 Effects of foreign currency fluctuations on current results - qualitative
- 78 Major exchange rates used in the accounts
- 79 Long-term debt by currency
- 80 Short-term debt by currency
- 81 Foreign currency exposure management description

12. Stock Price Information

- 82 Market capitalization at year end
- 83 Market capitalization trend
- 84 Size of shareholdings
- 85 Type of shareholder

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ENHANCING AND ESTABLISHING STRONG RELATIONSHIPS WITH CUSTOMERS: THE CASE OF THE BANKING SECTOR IN FYROM

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The financial services industry in FYROM and the banking sector in particular is relatively young though is growing immensely and becoming highly competitive after foreign investments in the past several years were conducted by groups of foreign investors. At present 19 FSI operate in a market of 2.000.000 customers. Why is this imminent? For the reason that today the customer is more important than ever.

The purpose of this research paper is to provide insight about how behavioral and affective commitment could be enhanced in the banking sector in FYROM and in what way does it affect the established customer base.

Findings in our research indicate that at present even conservative banks not being positioned as customer-oriented, are forced to become customer-centric in order to survive or progress. Banks that realize the necessity of becoming customer-centric and of establishment of strong relationships with its customers based on affective commitment will prosper and grow while those who will follow the opposite route will lose ground to its competitors and will struggle for survival. Consequently all participants in our focus groups both from the B2C and B2B segment stated that they would prefer to build affective commitment with their FSI.

The particular research was conducted through inductive approach using semi-structured in-depth interviews with "elite participants", comparative case studies and focus groups.

Considering the fact that research for behavioral and affective commitment has not been conducted in the specific industry, substantial space for further research is assured.

Keywords: behavioral, affective, commitment, banking, FYROM, CRM

PURPOSE

The purpose of this research paper is to provide insight about how behavioral and affective commitment could be enhanced in the banking sector in FYROM and in what way does it affect the established customer base. The primary aims of this paper are to provide understanding about the current relationships between the subjects operating in the banking sector in FYROM and their customers and uncover the type of relationship whether behavioral or affective commitment exists, discover customers' perceptions in regard to the type of the relationships and their attitudes towards customer care before and after the implementation of a CRM program or complementary customer care integration system at the financial institutions. Moreover, this research paper will uncover the perceptions and expectations of the management of the particular bank towards increasing the behavioral or affective commitment with their clients and understanding of how these relationships could be established and maintained. Consequently, this research paper will explore and provide understanding of findings for future research on the particular topic. The particular research will be conducted through inductive approach using semi-structured in-depth interviews with "elite participants", comparative case studies and focus groups that will be discussed in greater detail in this research paper.

For the purpose of the particular research paper two different types of banks were selected with different mentality and business focus. Consequently, one bank owned by domestic investors, being attributed as conservative, albeit undertaking strategic moves incorporated in its mid-term business strategy to become more customer-centric and another bank being transformed from conservative to customer-centric as a result of a take-over of a major multinational banking Group. The findings in our research indicate that today even conservative banks not being focused towards the customer previously are forced to become customer-centric in order to survive and consequently be able to report positive financial figures in their balance sheets.

DESIGN/METHODOLOGY/APPROACH

Considering the nature and the specifics of the particular research and by taking into consideration past exam suggestions such as Fitzgibbon and White (2005), Menon and O'Connor (2007) and Kapoulas, et al (2002), it appeared that most suitable research approach for the particular research in behavioral and affective commitment was qualitative. Moreover the authors Carson, et al (2001) imply that qualitative studies are crucial and extremely valuable in the study of managerial performance and marketing activities within and by organizations, as these cannot be adequately studied in neatly arranged compartments in isolated and artificial settings. Creswell (1994) believes that by following an interpretative research through an inductive theory- that generates "mode of inquiry" can uncover a production of substantial and valuable knowledge for the business and the academic environment as well. In seeking understanding, qualitative research methods based on the "ethos" of an interpretative philosophy serve marketing management decision making in better manner than many other research methods that provide information without guidance (Carson et al, 2001). Through interpretative comparative case studies it will seek to reflect the manager's understanding and perception of behavioral and affective commitment and CRM. Moreover interpretative qualitative research methods are valuable for in-depth understanding of phenomena in the marketing domain, in managerial and consumer contexts (Carson et al, 2001). The purpose of this study is exploratory since it investigated and tried to uncover and understand an emerging phenomenon. This argument is supported and implied in the qualitative research by Kapoulas, et al (2002).

The particular research was being conducted through an inductive approach using semi-structured in-depth interviews with "elite participants", comparative case studies and focus groups. In-depth interviews, focus groups and case studies are comprehensive methodologies, that allow wide range for gathering of data, allow for observation what people say, written materials, documentary evidence and time specific approach that are clear benefits of its utilization as research techniques/methods (Carson et al, 2001). Primary data were collected from interviews that provided detailed insight about the understanding of the organization and its clients, the benefits of building strong and long term relationships with them and the drawbacks of having established relationships based on high switching costs. Moreover the authors Carson, et al (2001) state that qualitative research is suitable where the research emphasis is on in-depth understanding of how, why and in what connotation certain given phenomena occur and what impacts upon or influences such phenomena.

In -depth interviews with "elite participants" as stated by Egan, J. (2007) and Carson, et al (2001) is considered to be a methodology that is most likely to accomplish results in a qualitative research. Moreover the authors Carson, et al (2001) state that in-depth interviewing is a powerful research technique for interpretative research for the fact that it is a useful method for exploring new and under-researched topics including those that are new only to the researcher while its overall strength is its ability to gather rich and meaningful data and analysis of which will lead to significant depth of understanding that would be difficult to achieve by using any other method alone. Semi-structured interviews of different sessions of 45 minutes and of an hour was conducted and recorded on a digital recorder for further help and documentation of data for future revisit, as it is implied in the qualitative study by Fitzgibbon and White, (2005). Participants in the interviews were managers of the banks on a complementary position with our research area. This practice was being followed since these people are considered to be individuals that are highly influent, prominent, well informed about the organizations' operations and are selected based on their level of expertise (Marshall and Rossman, 1995:83).

In addition two case studies from different multi-channel banks were being conducted for further and more explicit comparison between different banks. Moreover, Carson, et al (2001) state that qualitative research is most relevant and provides useful and quality data when the emphasis is on comparison between different companies and industries. As argued by Patton (1990) that the design of a multi case uses combination of data sources in regards to secondary surveys, and company documentation to cross check data, increasing the credibility of the findings. This has provided an insight about the different perceptions of the management of the banks towards building affective commitment with their customers without disregarding behavioral commitment and facing negative implications on their established customer base in

terms of volume. Considering the different mentality of the management of the two banks that were part of our research, it is evident that the method of case-study was an optimal tool for comparison between these financial institutions that has albeit provided us with findings that are applicable for the whole banking sector in FYROM. Given the fact that qualitative methods are an array of interpretative techniques, they allow flexibility and variety in the study of complex phenomena in dynamic and changing environments (Carson et al, 2001). Secondary data was collected from various electronic sources, such as web sites from the participative banks in our research, publications, relevant articles, competitors' web sites and previous research done in the Balkan region since in FYROM previous research on the particular topic and in the specific industry has not been conducted at all.

For the purpose of the research, focus groups were being conducted as a tool that well supported the findings that were gathered in the process of our research. Focus groups are an extremely useful and often cost-effective method of gathering insightful aspects about a research topic (Carson et al, 2001). Focus groups were consisted of bank's customers that possesses the necessary expertise and have established relationships with the bank on a long term bases (Marshall and Rossman, 1995:83). Each focus group was consisted of 8 participants as it is suggested by Carson, et al (2001) in their work "Qualitative Marketing Research" that the optimal and most suitable number of participants for a particular focus group is ranging from 5 to 8. The focus groups were being conducted in two sessions, each of them enduring between 45 minutes and one hour as suggested by Carson, et al (2001) that this particular time interval for duration of the focus groups' sessions is providing optimal and quality findings. The method of triangulation was being applied in order to cross-check managers' and customers' perception towards behavioral and affective commitment, suggested in the qualitative study by Kapoulas, et al (2002).

LITERATURE REVIEW

The authors, Menon and O'Connor (2007) state that the term "behavioral commitment", also referred to as "calculative" or "continuance" commitment refers to customer- marketer relationship that is maintained by the perception of the customer of high switching costs, lack of market alternatives or also referred to as "customer inertia". On the other hand, the authors Sharma, et al (2006) think that this definition has to be broadened and for this reason, state that the behavioral dimensions of a commitment refer to "the overt of manifestations of relationship continuation and associated investments", in a form that is the allocation and development of resources, including different perspectives in terms of human, financial and physical aspect in a particular relationship in the form of a dedicated relationship-specific assets. The authors refer to this specific type of commitment as "behavioral commitment" or "resource commitment".

However the authors Menon and O'Connor (2007) and Sharma, et al (2006) agree that the term "affective commitment" refers to a customer-marketer relationship that is maintained on the pillars of reciprocity and mutual trust. It further implies "emotional attachment" between the two sides based on shared values. Moreover the authors, Menon and O'Connor (2007) emphasize that an essential prerequisite in order to achieve a successful CRM strategy, it is vital that companies establish behavioral or preferably affective commitment with their customers. In this connotation, the authors Reynolds and Phillips (2005) emphasize the importance of establishments of relationships based on loyal customers by stating that it is evident that market share that results from an activity from loyal customers is understood to be more sustainable and profitable. Moreover Yue and Xie (2008) based on the findings in their research on the "antecedents and consequences of customer loyalty: an empirical synthesis and reexamination" prove that the findings indicate stronger effect sizes for trust, perceived value, perceived fairness, and product/service quality rather than in the case of high switching costs, psychological commitment, brand reputation and general customer satisfaction. Hence, the authors state that the magnitude of customer loyalty did not seem to reflect any major differences in the case of tangible products in complementary industries and economic segments operating with intangible services. The previously stated fact is extremely important considering that this finding additionally contributes to data validity in different geographic and economic segments regardless of the business subjects' core operations.

The author Breur, (2006) defines the term “customer value” as representation of either the benefit/value that a customer gets from using a product, or the profit that the company gets from a customer. In this connotation the author states that there are two approaches soft and hard. The soft approach is directed to only how to satisfy the customer. On the other hand, the hard approach that is recommended by authors Breur (2006) and Kapoulas, et al (2004) deals with creation of shareholder value for the customer. Moreover, the author Kapferer (2006) states that there is a dramatic gap existing between the latest definitions of marketing by Kotler that emphasize “the soft notions of a balanced exchange relationship” and the hard mantra of the modern marketing strategy that is directed into reduction of people’s choices. Hence, the author elaborates and clarifies what loyalty really means today in the market and how best it can be achieved from the perspective of semantics. Kapferer (2006) states that the issue of the global phenomenon of decrease in brand loyalty is motivated by the disparity in the core meaning of the term “loyalty” in different languages and cultures in the first place. The term “loyalty”, as the author implies when translated into French becomes “fidelite”, derived from the Latin word “faith” and when translated into German it becomes “marktrauen”, based on the verb “trauen” that has religious connotation! However, the author states that regardless of the culture and language being examined the term “loyalty” refers to a unique type of relationship, based on reciprocity and at its extreme exclusivity. Consequently, the author Kapferer (2006) makes a parallel between the relationship of a business subject and its customer and the marriage between a man and women. The author states that the word “fidelite” in French that means “faith” in English implies exclusivity demanded from a long lasting relationship. But for the reason that people divorce and remarry with the evolution of the modern society, as stated by the author this perception is not applicable to the core definition. Because of this issue, the author states that brand cannot seek for exclusivity based on long-term relationships but rather seek for relationship that is based on mutual knowledge and values that could be defined as friendship for the reason that friendship unlikely like marriage demands no exclusivity and is always open to others as long as they largely share the same ideals, behaviors and views. The author believes that the path to this outcome of building relationship based on mutual trust is the companies to realize that the key is not to limit the customers` choices but paradoxically allow the customer to choose from more versatile choices.

The authors Sarel and Marmorstein (2007), Fitzgibbon and White (2005) and Reynolds and Phillips (2005) agree that not all customers contribute equally to the revenues and profits of a particular company. Consequently, the authors Reynolds and Phillips (2005) state that if a company is seen as an organism, the caloric contribution of the loyal customers could be seen as “nutrient rich”, while those of the less loyal customers could be seen as “empty”. Moreover, the authors Sarel and Marmorstein (2007) and Fitzgibbon and White (2005) initially agree with this statement, they think that companies should focus on identification of profitable customers and their life cycle considering that fact that an increase in number of new clients does not by itself imply positive implications on the financial performance of the particular company.

The author Yildiz (2007) and the authors Heath, et al (2006) agree that in their research they found that “trust” was the key variable that stimulates commercial trade and communication. Moreover Riivari, J. (2005) emphasizes the future and potential of mobile banking as an emerging trend in the financial services industry because there are three times more mobile phone users than online PC users. According to the author mobile devices become preferred route of communication by customers that opens opportunity for financial institutions through mobile banking applications to “put its brand into customer’s pocket”. However, considering the findings by the authors, Heath, et al (2006) that reveal that behavioral research conducted by Watzlawick, Bavelas and Jackson (1967) suggests that is the emotional and not the rational content in communication that drives relationships, the author Riivari (2005) states that there is an enormous limitation in the context of mobile banking in terms of communication having in mind that the switching costs for customers are extremely low. For this reason the author, Sjödin (2006) states that the recent developments in new technologies and channels of communication provide important tools for better monitoring and management of the relationship being established between the company (brand) and its customers and the communication between these two subjects. The author pinpoints e-mails, companies` websites as important emerging platforms for communication between the company and its customers that present the foundation for blogs and podcasts as evolving elements of the previously mentioned pillars

representing the foundation for more intensive interaction between the company and its customers that are rising in popularity and most important are contributing to interaction not just between the customer and company but among the customers themselves as well. The authors Yildiz (2008) and Godin (2000) agree that e-mailing has proved to be an effective route of increasing customer loyalty among the established customer base of the particular business subject and on the other hand has proved to be a powerful weapon in "conquest of new customers". This argument has also been supported by the findings from the focus groups in our research. Moreover, the author Sjödin (2006) emphasizes that even though all these channels accelerate and facilitate the diffusion of word of mouth, more importantly on behalf of the companies, it puts them in a strong position to monitor these relationships. In order this relationship to work, the authors recommend that the business subjects practice the principle of permission marketing in their operations that means that in order e-mailing to be effective, the customer must first accept the invitation for the business subject to send its e-mails to his/her address. The author Godin (2000) believes that the permission marketing empowers the customer of controlling the frequency and number of messages it does not affect the development of exchange but rather stimulates it by increasing the frequency of communication, increases the trust in the seller and enables preservation of the powerful and strong long-term relationship between the business subject and its customer. However, the author Sjödin (2006) warns about the possibility of diffusion and emergence of negative word of mouth that today in the market when the customer is most important and to a large extent is influenced by statements and experiences of other customers is the most dangerous weapon against any company operating in the market. In this connotation, Berry, J. (2006) presents the following formula for calculating economic benefit of each potential communication: $\text{propensity to respond} \times \text{value of the response} \div \text{cost of communication}$.

Challenges for bankers in the future will be to introduce larger number points of interaction with the customer without "compromising the convenience factors that customers have now come to expect". (p.167) Companies should be careful when relying on technology since technology should be used for routine, non complex services and in others conduct personal contact in order to achieve high level of customer satisfaction (Menon and O'Connor, 2007). In order companies to maximize its performances, increase customer satisfaction that by the fact itself would have positive implications on building strong long term relationships with their customers, they will have to maximize its employee motivation. In order to achieve the particular objective, companies should focus on selection and adjustment of the working conditions, identify applicants with the relevant needs and dispositions in order to best respond to the demands of the complementary position, design jobs and tasks to provide variation and challenge to be in a position to achieve intrinsic motivation, permanent training and sporadic revision for a timely and relevant feedback and continuous supervision on the workload of employees in order to avoid extreme stress and pressure on the employees. By no doubt, organizations will have to give incentives to its employees, but doing so the positive effects that will follow will be inevitable and will not only contribute to establishment of better internal relationships in the organization but will result in improvement of the established relationships with the existing customers that will stimulate establishment of better relationships with prospective customers and increase of customers volume. Considering the fact that personnel practices are not imitable and applicable to various types of organizations it will provide the particular organization with a sustainable and powerful competitive advantage. (Benkhoff, 1996) Moreover, companies should focus more increasingly on post-sale communication since this is the main reason that determines whether a certain relationship between a business subject and its client will be made or broken. (Heath, et al, 2006) Consequently, the authors Reynolds and Phillips (2005) state that gained market share through loyal customers is proven to be significantly more sustainable and profitable. In this respect, organizations from the banking sector should direct its focus on identification and recognition of profitable customers and their life cycle and build strong relations with them, considering the fact that increase in volume does not necessarily imply increase in company revenue and profits. (Sarel and Marmorstein, 2007, Fitzgibbon and White, 2005). As stated by Reynolds and Phillips (2005) that just as calories are not equally nutritious, not all share points contribute equally to the health of the brand, in a way that the caloric contribution of loyal customers is seen to be "nutrient rich" while those of less loyal customers can be thought as "empty". Moreover, understanding how a brand is nourished provides useful and helpful information for evaluation of the company's health and if necessary prescribing the company a diet. (Reynolds and Phillips, 2005)

FINDINGS

For the purpose of our research we have selected two multi channel banks, representatives of the middle banking sector of FYROM for the reason that these two banks had different mentality and culture. Bank A is owned by domestic investors while its business style of management and operations could be attributed as conservative though as findings will later on indicate, shifting towards more customer-centric orientation. Bank B on the other side is a bank that was taken over by one eminent multinational Group several years ago and since then the bank has become customer centric and incorporated customer care and the customer itself in the focus of its business strategy and core operations.

Findings in our research indicate that none of the banks that participated in our research have implemented a CRM program to aid them in better uncovering, understanding and management of the relationships with their customers. However in both cases, the managers have stated that their banks utilize various mechanisms and techniques for uncovering, management and improvement of the relationships they have established with their customers. In the case of bank A the reason for not having implemented a CRM system was that the eventual implementation of it would not make any financial sense considering the fact that the cumulative customer base of the bank is ca. 80.000 customers, albeit having various mechanisms such as procedures, planed actions, analysis of the customer base...that can be attributed as CRM activities. In the case of bank B, although the bank had not implemented a CRM program yet, the perceptions of the management of the company regarding the importance of the client and building strong and long lasting relationships with him/her have significantly changed after the entrance of the multinational Group in bank B that had moreover contributed the bank to be attributed and positioned as customer centric.

While the manager of bank A stated that they have build different relationships with different clients and that their focus is on building and maintenance of the affective commitment with their bigger clients, those who could be attributed as community leaders that according to the manager greatly influence new customers, the manager of bank B stated that the formulated business strategy of the new management is that every client should be treated as VIP person and none of the clients should receive more beneficial treatment than other regardless of his/her importance to the bank and hence targeted establishment of affective commitment with all subjects that its customer base was comprised of. However the manger of bank B stated that albeit there are some exceptions in the practice, the bank remains focused onto offering a unified approach towards customer care to all of its customers.

Findings in our research from the focus groups indicate that larger number of customers from bank B had established affective commitment with their bank and perceived their bank (bank B) as "carrying", "trustworthy", and "supportive" although certain clients expressed their opinion that there is still room for improvement. Moreover customers stated that after the take-over of bank B by the multinational Group their trust in the bank had significantly increased as a result of the improvement of the bank in various fields and most importantly in the customer care towards them. Considering the fact that bank B before the entrance of the multinational Group had focused its business operations narrowly in terms of geographic to two major cities in FYROM, the new management had changed this drawback by establishment of new branch offices in other cities in FYROM and improved the assortment of products and services of the bank. Moreover while improving the internal relations with engagement of new young and qualified labor force and providing training to the existing employees of the bank that represented important steps in improvement of the image of the bank on the market. As stated by the bank's manager: *"I can say that the perceptions of how the customer service should be conducted have changed and we have made significant steps in the context of training of our personnel. I have to mention that this is not something that can be changed over night, I said that last year we had 112 new employees, large portion of which did not have a working experience or they had different perceptions about customer service, if they came from different banks or financial institutions and over training of our employees, we try to bring our employees to a unified approach towards good customer service"*.

As one customer commented: *"As a client of that specific bank for 13 years, in the last years, after the bank became bigger, I think that the young personnel that was engaged in this bank greatly contributed to the performance of the bank because of its efficiency and friendliness"*. The level of satisfaction and perception about the relationship they have built with their bank in all cases of the respondents in the focus groups regarding bank B was that

it was professional, based on mutual trust and that both sides benefited from this relationship regardless of the type of the customer whether it is B2C or B2B. As one customer commented: *"I am extremely satisfied with my bank, more accurately 100% because if this was not the case, I would have changed it by now"*.

Another customer defined her relationship with the bank in the following way: *"If I have to define my relation with the bank in few words those would be: perfect, trustworthy relationship with benefits for both sides"*. Moreover another customer commented: *"I feel that the bank is practicing the motto: "Think global, act local". It is like there is special treatment for everyone but in fact all customers receive the same beneficial treatment"*. In the case of B2B customers the level of satisfaction was nearly the same as in the B2C segment with responses from the participants that indicate relationship based on affective commitment. However some of the respondents have complained about the complex administrative procedures although they stated that they realize that these are standardized procedures practiced by the whole banking sector in FYROM, but implied that if the bank could find a way to lower the paper work, guarantees demanded and time intervals for credit approvals it would enable companies to be even more efficient and effective in their business operations.

On the other hand, there was a dramatic gap in the responses of the participants of the focus group in terms of B2B and B2C customers regarding the customer care and established relationships with them from the perspective of bank A. B2C customers were evidently much more dissatisfied with the relationships that they have established with their bank that could be defined as behavioral commitment. As one customer commented: *"The relationship that the bank has towards me is not professional... There isn't any change in the customer care towards B2C customers, there isn't any service available, there isn't any possibility to talk with someone, in order to gain certain information you should make efforts by yourself via internet, and the bank thinks that if they upload certain information on their website it is enough to inform their customers about any changes or notifications"*. All respondents from the B2C segment had complaint on their relationship with the bank and emphasized the components of "confidentiality" and "professionalism" as key issues for having not established affective commitment with their bank.

On the other hand, B2B customers were explicitly much more satisfied from the support and attention they receive from their bank (bank A), from the collaboration with it and consequently stated that their relationship is based solely on affective commitment, as long-term clients of the bank. As one customer commented: *"In general I am highly satisfied of my bank for the reason that in our long-years of operations I have not experienced any problem. Every time when certain obstacle had occurred was being resolved promptly and effectively. As a client that is with the bank for many years, I could say that we have a relationship built on mutual trust. I receive great beneficial treatment from the bank probably because I am loyal customer of the bank for years ... What really overwhelms me is the fact that the bank's employees always have a solution for a given problem in the shortest time period regardless of its complexity and believe me, sometimes I really had complex issues that had to be resolved"* However one B2B respondent stated that they have built affective commitment with the particular bank and not with any other because of his close relationships with the management of the bank. *"We are clients of the bank because the vice director of the bank is my friend for many years. Our relationship is solid above all because we are friends and not because the bank offers some kind of extra benefits to my company"*.

All of the B2B respondents stated that they have trust in the bank and that they are satisfied from the care they receive albeit some B2B customers that have collaborated with foreign banks stated that they would like the communication with the bank to be more intensive via different channels such as telephone, face-to-face, Internet, although all B2B respondents pinpointed e-mailing as most desired and effective form of communication with their bank. As one customer provided his insight and expectations of his future interaction with the bank: *"My expectation is that in a near future I will communicate with my bank electronically. I doubt that in near future someone will communicate with his/her bank physically"*. Moreover another customer commented: *"I would like to have a relationship that is based electronically for the very basic fact that it saves money, and today more than ever, time is money. The reasons for this are that I have access to my bank 24/7, regardless of my location"*. In this connotation one customer made an interesting remark: *"I think that the bank has to pay greater attention in the communication with its clients in terms of customer care. What do I mean by this? The bank should send a postcard for a birthday of its customer, an e-mail for the same purpose or as an informative mail because I believe that such gesture means a lot. For some people it is a mean to feed their ego, for some it is a more emotional issue, but*

the fact is that all people appreciate special attention. In any case such care had always resulted in positive effects and in greater faith or loyalty to someone”.

The implementation of the strategic steps discussed in greater detail at an earlier stage of this paper by bank B have put them into position to bring the bank closer to the customer, increase the components of satisfaction and trust among their customers that enabled them to convert the relationships with their customers based on behavioral commitment into affective relationships based on mutual trust and benefits, improve and strengthen the already established affective commitment with their clients, that has put them in strong position to have high rate of customer retention and through the active recommendations of their current customer base via positive word of mouth be able to positively impact their customer base in terms of volume. As stated by the bank manager: *“I have to emphasize that our goal is not to have these customers only as loyal clients. The ultimate sales goal is not to only make these clients loyal, but to be clients that will give active recommendations for our bank. That is our ultimate goal I can say, in the context of sales and customer service, to have clients that will permanently collaborate with us, to be satisfied of our service and clients that will further spread positive word-of-mouth for our bank”.* This issue is extremely important considering the fact that enormous 69 percent of clients shift from one bank to another because of having not established affective commitment with their bank or have established behavioral commitment with it but stay with the bank only because of the issue of high switching costs and plan to leave the bank the first time they will have the possibility for it. As stated by the manager of bank B: *“1 percent of the clients leave the bank because of death, simply biological process. 3 percent of the clients leave because of migration or immigration issues...5 percent of the customers leave because of friends` suggestions...7-9 percent leave because of competitive issues...But significant 69 percent of the clients leave because of negative customer service or experience at a bank. So, all these parameters listed before, do not give this percentage cumulatively. This parameter indicates the importance of the customer...”.* Moreover all participants in our focus groups with the exception of two that were neutral towards the issue of building affective or behavioral commitment with the bank because of personal resistant perceptions towards the banking sector in general, stated that building of affective commitment between a bank and its clients in FYROM is vital, considering the low switching costs in the banking sector. If banks do not focus on establishment of affective commitment with their clients and transformation of its relationships with its customers from behavioral into affective commitment banks will struggle for survival. As one customer commented: *“Today in FYROM the switching costs in the banking sector are minimal. Today almost every loyal customer to its bank in FYROM is because of the mutual trust and nothing else”.* On the other hand, the establishment of affective commitment with their existing customer base will enable them to be in a strong position to have high rate of customer retention and hence be able to build affective commitment with new customers and better manage already existing relationships based on behavioral commitment and transform them into affective commitment enabling banks in FYROM to have positive implications on their customer base in terms of volume. Consequently the findings of our research in regard to the focus groups in which all customers have stated that they would like to build relationship with their bank based on affective commitment indicates the necessity of its establishment and permanent maintenance.

CONCLUSION

Findings from our research indicated that even conservative banks like bank A start to undertake strategic steps to become more customer-centric realizing that it is the winning business route, as the case with bank B indicated. Consequently this research paper highlighted the importance of establishment of affective commitment with customers, and investing extensive efforts as a company to convert the relationships based on behavioral into affective commitment considering the fact that behavioral commitment has to be seen as an initial and temporary base on which affective commitment should be build. Moreover this research provided an indication that establishment of affective commitment with customer as a customer-centric company will have positive implications on the respective company`s customer base in terms of volume. Consequently this will enable the particular business subject to have high customer retention rate while tracing the route to customer acquisition more easily. Banks that realize the necessity of becoming customer-centric and of establishment of strong relationships with its customers based on affective commitment will prosper and grow while those who will follow the opposite route will struggle for survival.

RESEARCH LIMITATIONS/IMPLICATIONS

In the particular research, the focus was on the process of building behavioral and affective commitment between the financial institutions (banks) in the middle segment of the banking sector in FYROM and its clients and did not focus on how technological advancements` influence the particular process.

Considering the fact that the banking sector in FYROM is highly competitive considering the extensive number of rival banks operating in it in correlation with the market size of 2.000.000 residents, future research would be necessary to a different geographical setting and analysis of different industrial sectors as to assure relevance of the findings for different geographical areas and industrial segments as it has been suggested by authors Menon and O`Connor (2007) and Fitzgibbon and White (2005) in their research on behavioral and affective commitment as well.

PRACTICAL IMPLICATIONS

This research paper will aid the banks operating in FYROM to easier identify the type of relationship they have established with their clients, moreover provide them with understanding from academic perspective how these relationships can be better managed and improved. Moreover, this paper will provide managers with direction of how relationships with their clients based on behavioral commitment could be managed and transformed into long term strong relationships based on affective commitment that will positively reflect on the customer base of the respective bank in terms of volume. Consequently, customer care, better management of customer relationships, increase in trust in the respective bank and positive implications on the customer base are expected outcomes of the eventual implementation of the recommendations this paper provides on behalf of the banks.

SOCIAL IMPLICATIONS

This research will provide customers with better understanding of the banks as financial institutions that do not only care about their own interest and financial results but are open and supportive institutions that care about the customer and their relationship with him/her to be based on mutual trust and benefits. Moreover, it will provide indication to the banks about the level of fit between the perception they think the customers have about the type of the established relationship with them and the actual perception of the customer towards the respective relationship.

ORIGINALITY/VALUE

Considering the fact that the banking industry in FYROM is relatively young albeit highly competitive and the fact that research in particular for behavioral and affective commitment has not yet been conducted in any sector in FYROM, the value of this research paper in providing an insight about the enhancement of behavioral and affective commitment in the banking sector, its influence on the established banks` customer base and uncovering of the type of relationships that exist between the banks and its customers, while providing an insight about the understanding of the banks` managements towards the importance of establishment of affective commitment and conversion of the relationships they have with their customers based on behavioral commitment onto affective commitment is significant .

Consequently, all managers that participated in our research were extremely optimistic that this paper will positively contribute to improvement and better management of customer relationships and building strong and long term relationships based on mutual trust and benefits and try to improve the relationships with the customers that have build behavioral commitment with the bank considering the fact that today the customer is most expensive. As one manager commented: *“This research will provide us with an aid from the academic perspective in better management of our relationships with the customers, how to keep our satisfied customers that trust our bank and how to change perceptions of those customers that feel they are obliged to stay with our bank out of different reasons”* .

Another manager commented: *“Considering the fierce competition in the banking sector in FYROM and the fact that it may cost up to 5 times more to acquire new customer than to keep an already existing one, such research was necessary and will surely provide us with an indication of our relationship with the customers and the type of relationships that we have established with them. This will help us to better manage the relationships with our customers and enable us to provide them with better customer care that will eventually result in an increase of customer satisfaction and trust in our bank from a customer perspective”*.

Moreover, the managers stated that the particular research will immensely aid them in their operations and stated that they will present the findings to the Board of Directors that may utilize them in the formulation or customization of their banks' business and operating strategy.

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COMPETITIVE SOURCES & PERFORMANCE OF CYPRIOT FURNITURE MANUFACTURERS

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Purpose - The study provides important implications for managers and researchers who explore the relationships among competitive sources and company performance.

Design / methodology/ approach - A 2007 empirical study explores the competitiveness of 145 furniture enterprises in Cyprus. Based upon the relevant literature, a comprehensive list of 47 competitive items was developed which were viewed as potential strategic abilities supporting competitiveness. The data analysis techniques are descriptive statistics, correlation and regression analysis, using the SPSS package.

Findings - Cypriot furniture manufacturing follows the principles of manufacturing strategy. Competitive advantage is limited in price and quality. Price-competitive companies are stressing delivery/time issues with a leading role of the marketing area, whereas quality – competitive ones are building on marketing and new products, with quality being the strongest predictor for market share.

Time is seen as a possible winning criterion. On – time delivery strongly correlates to human resources, but not to quality processes. Yet, Quality Management starts gaining some attention with ISO 9001:2000 being the main concern.

The Cypriot furniture sector is still lagging behind in technology and manufacturing. This, however, does not mean that advanced technologies are neglected in Cyprus with a steady growth of CNC machinery.

Practical Implications - Mature, industries, struggle to survive in the new globalized markets. The study provides useful information first and most of all for Cypriot managers and all responsables for the survival and development of the Cypriot furniture industry. It also proves that companies need more than one competitive priorities and advantages to prosper, while focusing on a single competitive component is rather dangerous.

Originality / value - This was the first study devoted to the analysis of manufacturing, product development, marketing, quality, human resources and overall management decisions adopted by Cypriot furniture manufacturers.

This study expands previous similar studies, offering more insight on the effects of the several functional areas and arising questions on the differences among the same industry sector across different nations.

Keywords: Competitive Sources, Performance, Cyprus, Furniture industry, Manufacturing, Empirical Research

INTRODUCTION

This paper presents the results of a survey about the competitive sources and performance of 145 furniture manufacturers located in Cyprus. The survey was conducted in late 2007 and combines competitive strategy and performance in order to draw results and suggestions for the Cypriot furniture industry. There are currently some 800 factories and workshops throughout the country, employing a total of 2,500 people (CSIL, 2008).

There are practically no studies that have been devoted to the analysis of manufacturing, product development, marketing, quality, human resources and overall management decisions adopted by Cypriot furniture manufacturers. Responding to the specific industry need for survival and development, this research aims at investigating sources of competitive advantage that could lead to superior performance.

The aim of this paper is to establish the framework in which the Cyprus wood and furniture industry is operating with emphasis given to the competitive priorities and manufacturing parameters. The level of existence of various characteristics of the companies is investigated and correlated in order to examine their relationship. The level of importance given to each competitive priority and manufacturing parameter is established.

This paper is organized as follows. First, the strategic operations literature is reviewed to develop a theoretically relevant list of competitive priorities. The methodology is described next, including the sampling procedure and measurement process. The set of competitive priorities is then analyzed to identify core dimensions of manufacturing strength in the furniture industry. Next, predictive validity is established by examining relationships between these generic dimensions of manufacturing performance and overall business performance. Finally, the managerial implications of this study are presented along with suggestions for future research.

Following a discussion of the survey, the results which focus on competitive objectives and performance are discussed, as well as their relationship to the above mentioned competencies and their practice.

LITERATURE REVIEW

Porter (1980) developed the idea that all competitive strategies are variants of generic strategies involving a choice between differentiation and delivered cost (price), with degrees of focus, i.e., serving niche or broad markets, providing a second competitive dimension. The term "competitive advantage" has at least two distinct but interrelated meanings. The first focuses on superiority in skills and/or resources and the second are concerned with superiority in performance outcomes (Vickery, 1994). Still, both meanings rely on companies' distinctive competencies such as New Product Development, Quality and Marketing.

Traditionally competition was static with production factors being the key responsables for success or failure. Modern competition is global and unexpectedly dynamic. The industrial competitive advantage is changing rapidly due to new and innovative technology, shorter product life cycles and new dynamic players such as China. Li (2000) claims that there is a cross-functional effort between marketing and operations to follow the market needs and translate them into capabilities.

Numerous studies conducted during the past two decades demonstrate the importance of strategy in relation to firm performance (Demeter, 2003). This stream of research includes work highlighting the connection between performance and manufacturing technology (Beaumont and Schroeder, 1997; Das and Narasimhan, 2001), quality management practices (related to both people and systems/assets) (Dow *et al.*, 1999) and overall strategy (Robb and Xie, 2005; Li, 2000). We first argue that competencies in marketing, innovation, quality, human resources, overall management and manufacturing are sources of advantage for a firm. We focus on these six functional areas because they have long been hypothesized to be crucial to corporate survival and progress.

The marketing, innovation, and manufacturing competencies are defined in terms of the weighted performance on a comprehensive set of competitive elements. The set of elements is derived from the strategy, innovation, marketing, and manufacturing literature. Such items have also been referred to as capabilities and order-winning criteria. The literature also suggests that competitive performance relative to such items contributes to business performance, and hence, to overall competitive advantage. The literature reduces an exhaustive list of competitive priorities to five to six core dimensions: price (cost), quality, delivery performance, dependability, innovativeness and flexibility (Hayes and Wheelwright, 1984; Ferdows and De Meyer, 1990; Ward *et al.*, 1990; Roth and Van Der Velde, 1991).

Previous research has shown that only when a firm can concert its functional area competencies, can it enhance competitiveness (Li, 2000; Evans and Lindsay, 1996; Hill and Jones, 1989; Porter, 1990). In 1966, Skinner described the heightened competitive pressures placed upon U.S. manufacturers for improvement in a variety of performance categories. The areas that were marked as the most important were: more frequent product changes and new product introductions; price advantage; lower production costs; quality which encompassed appearance, style, function, and tighter design tolerances; longer, trouble-free product life; special purpose or customer-designated products; shorter lead times; and delivery speed (in Vickery *et al.*, 1997). Several years later (in 1974) Skinner described some common standards for measuring manufacturing performance. These performance criteria included short delivery cycles; superior product quality and reliability; dependable delivery promises; the ability to produce new products quickly; flexibility in adjusting to volume changes; low investment leading to high return on investment and low costs.

Since then several authors have described in an analytical way the most important general criteria for enhancing and evaluating manufacturing performance : Wheelwright (1978) (in Robb and Xie, 2003); Schmenner, (1981) who grouped them in product - , delivery – and cost – related “competitive demands”; Hayes and Wheelwright (1984) who introduced the term 'competitive priorities'; Krajewski and Ritzman (1987) with a more definitive list of manufacturing competitive priorities; Hill (1994) who outlined a set of 'order-winning criteria' and Schroeder and Lahr (1990). Each author expanded the criteria from price, product and process quality (conformance to specifications) and reliability to delivery speed, delivery reliability, and the ability to respond to increases in demand as well as after-sales service, product design, product customization, process technology (Vickery et al, 1997).

Around the same time, empirical studies focusing on competitive priorities began to stress the need for consistent quality, high performance products, dependable delivery promises such as delivery on due date, fast deliveries, design changes/introduction of new products, rapid volume changes, offer low prices, broad distribution, advertise effectively, broad product line, and after-sales service (Cleveland et al., 1989; Wood et al., 1990; Ferdows and De Meyer, 1990 in Vickery et al, 1997).

A common theme in operations strategy research has been the manufacturers' choices of emphasis among key capabilities or competitive priorities. Schroeder et al. (1986) found the first- and second- ranked objectives to be quality and delivery performance, respectively. Single-industry US studies include Vickery et al. (1997) on 65 furniture manufacturers, finding significant relationships between company financial performance and the degree to which manufacturing performance supported the business strategy.

Other studies concentrated on *infrastructure* (human resources, management policies, and procedures) such as Upton (1995, in Robb and Xie, 2001), who entered the importance of the workforce and management communication and Bates et al. (1997) who show a significant relationship between manufacturing strategy and management, and Evans and Lindsey (1996) and Simerly (1997) who discussed on the effect of human resources.

Based on the above literature and using the studies of Vickery et al. (1996) and Li (2000) as guidelines, a comprehensive list of 47 items was developed, which were categorized to the six categories that were found to be crucial functional areas for firm survival and development: marketing, product design and development, quality, human resources, overall management and manufacturing.

More specifically and in order to clarify their role, the above functional areas are briefly discussed below:

Marketing: Literature concerning marketing and its linkage to production shows that one key to success is the understanding of customers and expected wishes and their satisfaction (Krajewski and Ritzman 1996; Li, 2000). Therefore, the existence of a separate marketing department, with modern approaches and tools and a formed strategy emphasizes responsiveness, meeting customer's needs.

Product design and development: They are considered as innovation capabilities and thus cover the area of innovation. Furthermore, furniture industry belongs to the mature ones. So, one cannot expect radical innovations or exceptional R&D. Many studies have suggested that they have a significant impact on a firm's overall performance (Ettlie, 1997; Porter, 1990).

Quality: Garvin (1987) points out that quality is multidimensional and that each of its dimensions can be used strategically to gain competitive advantage. The quality scale used here includes items related to the important quality aspect of process control and process management (Flynn et al., 1994). Quality cycles and employee contribution have been recalled from the classical quality theory.

Human Resources: Evaluation and training combined to a good communication with the top management empowers employee satisfaction and leads to superior performance. Human resources management is one of the non replicable and most valuable competences in a prospering organization. Its importance has been highlighted by numerous authors (Forrester and Hassard, 2000; Sun *et al.*, 2001; Porter, 1990; Hil, 1994; Simerly, 1997).

Overall Management: Studies dealing with the connection between business management and business performance have played an important role (e.g. Pearce et al., 1987; Cool and Schendel, 1987; Banker et al.,

1996) in the development of the production strategy of successful organizations. They refer to business characteristics and strategies, such as communication and collaboration, information diffusion and company programs. Benchmarking is introduced as an indicative practice, in order to specify the general meaning of "new practices" (where the answer is usually *yes*).

Manufacturing: Recent management theories stress the need for the manufacturing strategy of the business to be compatible with the firm's competitive strategy (Efstathiades et al., 1999). Success in the global market place requires companies to employ technology strategically by linking it to a firm's competitive strategy. Such a link ensures that technology and strategy support one another, enabling a company to better achieve its goals (Zahra, 1994). The target customer needs determine the manufacturing capabilities the firm must possess, in order to offer a competitive customer service. Therefore, the development and use of technology must be guided explicitly by the business strategy of the firm. Technology is then considered as a tool that has to be used in the strategy of an enterprise (Haan and Peters, 1993; Erickson et al., 1991).

Using a rather big pool of manufacturing parameters, a set was made of the ones that have been identified as major contributors to the competitive priorities of the furniture industry (Efstathiades et al., 1999; Li, 2000).

Performance

Concerning business performance, it is obviously very difficult to create a single measure for business success. Still, the overall research hypothesis that the six above mentioned and discussed functional areas individually and/or jointly determine performance is strongly supported by the literature in a variety of fields. Fitzsimmons, Kouvelis, and Mallick (in Vickery, 1994) argue that the successful performance of design, manufacturing and marketing functions, as well as the performance of the whole, is required for competitive advantage.

Craig and Douglas (1982) investigated the effects of several marketing mix and industry structure variables on firm performance to find product quality to be significantly related to ROI and market share in every year of a six-year time horizon. Many studies in the innovation literature have identified innovation as a key determinant of firm performance, especially of growth. While the measurement of new product success or failure is multi-dimensional, researchers have historically focused on overall firm impacts (e.g., profitability, revenue growth, ROI) and have connected the number of new products to firm performance (Griffin, A. & Page, 1993).

In the manufacturing literature, several studies have attempted to link business performance with one or more manufacturing-related constructs. Wood et al. (1990) examined several competitive items (e.g., high product reliability, high durability, product customization, short delivery time, quality consistency, and cost) in their study of the effects of intended and achieved performance on firm performance. They found that above average financial performance was associated with above average emphasis on a wide variety of competitive items, highlighting quality and delivery accuracy among them. In a similar vein, Giffi et al. (1990) argued that the achievement of superior manufacturing capability requires emphasis on many priorities such as quality, dependability, cost, and flexibility (in Vickery et al., 1994).

CYPRUS

Cyprus, a small island in the eastern Mediterranean, has traditionally relied on agriculture and tourism for economic growth. The introduction of Cyprus to EU and market globalization have led to the opening up of the Cyprus market to manufacturers from the EU and other countries with products of higher quality and higher design content (e.g. Italy and Spain), or lower price (China) than locally manufactured goods. The challenge arises from the need to compete with European and other manufacturers in terms of cost and quality in the local market (Efstathiades et al., 1999) in an ever changing competitive environment. Success in this endeavour, however, requires new approaches to technology, human resource development, company structure, and management philosophy.

Cyprus is classified as a 'high income' economy in the World Development Report 1997 (Anon, 1998). Cypriot firms are generally very small with many micro-businesses: 88% of firms have less than 10

employees, while only 1.4% of firms have more than 50. Furthermore, industrial research in Cyprus is virtually absent and, probably, due to its size only some industrial development work is realistically feasible (Hadjimanolis & Dickson, 2001).

THE FURNITURE INDUSTRY

There are a remarkable number of studies of the furniture industry in the United Kingdom (Deeks, 1976 in Robb and Xie, 2003), the United States (Skinner and Rogers, 1968; Moorman and Montgomery, 1998 in Robb and Xie, 2003), and China (Robb and Xie, 2003). All of them show an industry comprised largely of small, privately- owned firms (the majority employing less than 100), with many operating in a 'craft' production mode and very labour intensive. Raw materials have a great impact on costs, plant locations, design and innovation.

With processes such as assembly and finishing notoriously difficult to automate, the furniture industry in general is not known for highly advanced manufacturing technology – the level is 'reasonable but not overwhelming' (Vickery *et al.*, 1994 in Robb and Xie, 2003). Generally only the largest firms target more than one segment of the market. A 1990 study of 65 US furniture firms with sales above 10 million US\$ showed that manufacturing strategy, expressed in terms of 'production competence', was strongly associated with business strategy and firm performance (Vickery *et al.*, 1993).

FURNITURE MANUFACTURING IN CYPRUS

The destruction of the island's infrastructure by the Turkish invasion in 1974 and the rapid reconstruction programme that followed, led to the rapid development of the furniture industry which was initially geared to serve the local construction industry. There are practically no studies about the specific industry and its main characteristics of its manufacturing and business strategy.

Furniture production in Cyprus is mainly based on wood, with a marginal share of plastic and metal furniture. Cyprus has limited forest resources but has large areas of woodland with typical Mediterranean flora. As could be expected Cyprus is completely dependent on imports of semi-finished wood products. It therefore shows a large deficit in the trade balance. The country is completely dependent on imports for its woodworking machinery needs (mainly from Italy).

In recent years (2002 – 2007) furniture production has slowly yet constantly decreased. In contrast, consumption has been increasing over the same period (about 50%). Actually, between 1998 and 2007 per capita private consumption showed average annual growth of about 5%. The Cyprus manufacturing sector is very active, also due to the country's great tourist attraction (around 2 million tourists every year). Demand is particularly high for hotels and other kinds of accommodation as well as houses used as a second home. The increased share of furniture imports on the domestic market should be noted (CSIL, 2008)

Most of the companies produce total furniture excluding parts, while the rest concentrate mainly on kitchen and frame production and installation. According to the Cyprus Furniture and Woodworking Industry Association, there are around 2,500 people working in almost 800 factories and workshops throughout the country. The number of employees in the sector has been stable since 1999 (CSIL, 2008).

RESEARCH METHODOLOGY

Furniture industry is in general highly competitive with a moderate level of technology. Globalization has changed the demand rules even for furniture; that is bulky products with expensive transfer. The purpose of the present study is to identify the competitive sources that affect the performance of Cypriot furniture firms, under the hypothesis that the whole organization is responsible for its economic growth and the ability to compete globally.

The methodology adopted in this study is based on the findings of the literature review outlined above. Based upon the strategy, innovation, manufacturing, and marketing literature, a comprehensive list of 47 competitive items was developed which were viewed as potential strategic abilities a firm acquired,

sustained, or improved upon with the goal of competitiveness. Most of the competitive priorities that were frequently cited in the various literatures, as important ones, were included, in order to be comprehensive. Following Li (2000) who formed four groups of competitive advantages (marketing, product design and development, manufacturing and human resources), the sources of competitiveness are explored in six separate groups of questions, which represent six functional areas (FA): overall management, human resources, quality, manufacturing, new product development and marketing.

Business performance is operationalized as a composite of four measures, market share (BP1); number of new product introductions (BP2); Quality conformance (BP3) responding to the percentage of not delivered /accepted products due to defects and On-time delivery (BP4) (Source: 1988 European Manufacturing Futures Survey (De Meyer and Ferdows, 1988)). It is important to have different performance measures, since firms competitive priorities are quite different (Droge et al. 1994). These four parameters refer to data of the last three years.

With a well known negative attitude towards mailed questionnaires in Cyprus (most companies do not even have an e-mail) we opted to phone companies directly requesting an interview with the manufacturing/ plant manager, who was usually the company's owner. The face-to-face contact provided a forum for the respondent to complete the questionnaire, as well as opportunities to discuss items in more detail and obtain anecdotal evidence.

The response rates was approximately 60%, while the final sample consisting of 145 firms, was a quite satisfactory one, based upon the total number of firms in the relevant population frame (around 800 in CSIL, 2008). There were 140 companies producing total furniture excluding parts, confirming the CSIL study, with a mean number of employees around 5.

The data analysis techniques employed are descriptive statistics, correlation analysis and regression analysis. Descriptive statistics were used to indicate the level of significance of each parameter. The current implementation status was assessed using 1 = none / no (which could mean "we don't have / use it" or "not at all"), 2 = in progress or under consideration or partly used, 3 = yes, fully used and similar expressions) and future investment plans (1 = no plans, 2 = considering, and 3 corresponding to yes (we use / have it, we fully believe and support it)). The same model was used for the performance parameters with 1 indicating declination, 2 for no change and 3 for increase in the last three years. Further questions were used to cross check these answers (the percentage of returns due to imperfections, or the percentage of delayed deliveries etc.). This was the promptest way to find out the real situation instead of wish and personal believes.

Correlation and regression analysis was used to examine and analyse the results obtained. The coefficient of correlation is a measure of the degree of linear association between two variables. Factors with a correlation coefficient greater than 0.3 and level of significance below or equal to 0.01 were considered as highly correlated.

All computations were done using the SPSS package (Norusis, 1997). The qualitative responses are used to provide context for the statistical results obtained.

RESULTS AND DISCUSSION

Demographics

The majority (128) are micro firms with a mean of 5.3 employees, which is rather representative of the Cypriot furniture sector. Practically all of them (140 out of 145) produce total furniture excluding parts and are Ltds (132, with the rest of them being SAs).

Competitive objectives

Respondents were asked to indicate their company situation on various "competitive objectives". They are described in six functional areas. The means and rank orders for the usage rating of the 47 items are given in Table 1 (overall ranking) and in Table 2 (ranking by functional area). In soliciting these competitive

priorities we were seeking to establish what the competitive advantage (if any) was that led to a satisfactory performance and could support the long wellbeing of the company.

The first important notice is that only five out of 47 globally established important competitive priorities (in both theoretical and empirical studies) are almost or above 2, indicating a rather poor and raw way of company management. Three of these items belong to the overall management area responding to the dependence from suppliers and the high degree of communication with both customers and suppliers. ‘Communicating with customers’ usually refers to the mouth-to mouth promotion and the tailor made products which enclose almost all customer wishes. Second and third ranked items are due to the micro - and rather family – type of the Cypriot furniture companies. Nevertheless, a fade commitment to quality appears with 3 items on quality to follow with means above 1.85 (1.86, 1.93, 1.99). ISO9001 and a quality strategy are some of the objectives that are enclosed in direct future plans (Table 1).

The last positions with a “no” answer by almost all respondents hold three marketing competencies. Cypriot firms neither regard the existence of a marketing department as a need, nor want to spend on market research. This can be satisfactorily explained by the combination of the steady demand increase (from 146 million € at 2002 to 216 million € at 2007 (CSIL, 2008)) and the reluctance of the Cypriot furniture manufacturers to export (although there are very good prospects for exporting due to Cyprus’s proximity to Lebanon and Arabic Emirates. Group targeting has gained the biggest mean of the particular functional area, which in any case is only 1.49, indicating a rather subconscious tendency to group their markets than really doing it.

Safety and Health seem not to interest Cypriot companies with a mean of 1.06. That can be explained because of the small size of the companies, but it will be a problem in conforming to EU laws.

<u>Competitive Capability</u>	<u>Functional Area</u>	<u>Mean (increasing order)</u>
Existence of a distinct Marketing dep.	MAR	1.01
Market research	MAR	1.02
Relation to other departments	MAR	1.02
Life cycle management	NPD	1.02
Establish brand name	MAR	1.04
Safety and health	OMAN	1.06
Benchmarking	OMAN	1.08
Collaboration to research programs	NPD	1.09
Quality cycles	QUA	1.12
NPD methods	NPD	1.12
EMAS	QUA	1.14
Formed objectives	OMAN	1.14
Internet use	MAR	1.16
Robot	MANU	1.17
BPR	MANU	1.17
MRP	MANU	1.17
Scada	MANU	1.19
CIM	MANU	1.19
QC automatization	MANU	1.20
Formed strategy	MAR	1.22
Info gathering and collaboration	OMAN	1.23
Involvement in objects forming	OMAN	1.23
Database marketing	MAR	1.25
Production line automation	MANU	1.25
CAD – CAM	MANU	1.29
B2B	MAR	1.30
B2C	MAR	1.30
Information diffusion	OMAN	1.30
Personnel training	HR	1.31
Personnel satisfaction measurement	HR	1.33

<i>Customer Relationship Management</i>	MAR	1.35
<i>EN 14000</i>	QUA	1.35
<i>Group targeting</i>	MAR	1.49
<i>Time study</i>	MANU	1.51
<i>QC sampling – products</i>	QUA	1.62
<i>QC sampling – raw materials</i>	QUA	1.63
<i>New technology acquisition</i>	NPD	1.63
<i>Access to manager</i>	HR	1.68
<i>Formed strategy</i>	OMAN	1.83
<i>Waste management</i>	MANU	1.85
<i>Formed Quality strategy</i>	QUA	1.86
<i>Employee contribution to quality</i>	QUA	1.93
<i>ISO 9000</i>	QUA	1.99
<i>Communication</i>	OMAN	2.09
<i>Personnel evaluation and recognition systems</i>	HR	2.16
<i>Cooperation with departments</i>	OMAN	2.21
<i>Cooperation with suppliers / customers</i>	OMAN	2.25

Table 1: Means and rank order for the competitive items

Human resources are regarded as an important competitive source, but training is neglected (mean = 1.31), although it is considered to be important. Free discussion proved training started to be part of their plans the last three years.

New technology in order to develop new products is under consideration (mean = 1,63), since Cypriot consumers are well informed and rather hard to please (Papadopoulos et al. 2007) and imported new products are very close to them. On the other hand, they do not manage the life cycle of their products but let customers decide about that (mean = 1.02).

<i>FUNCTIONAL AREA</i>	<i>Mean</i>
<i>FA1. OVERALL MANAGEMENT</i>	
<i>Formed strategy</i>	1.83
<i>Formed objectives</i>	1.14
<i>Involvement in objects forming</i>	1.23
<i>Cooperation with departments</i>	2.21
<i>Cooperation with suppliers / customers</i>	2.25
<i>Communication</i>	2.09
<i>Information diffusion</i>	1.30
<i>Safety and health</i>	1.06
<i>Benchmarking</i>	1.08
<i>Info gathering and collaboration</i>	1.23
<i>FA2. HUMAN RESOURCES</i>	
<i>Personnel evaluation and recognition systems</i>	2.16
<i>Personnel training</i>	1.31
<i>Personnel satisfaction measurement</i>	1.33
<i>Access to manager</i>	1.68
<i>FA3. PRODUCT DESIGN AND DEVELOPMENT</i>	
<i>Life cycle management</i>	1.02
<i>NPD methods</i>	1.12
<i>New technology acquisition</i>	1.63
<i>Collaboration to research programs</i>	1.09
<i>FA4. QUALITY</i>	
<i>Formed Quality strategy</i>	1.86

ISO 9000	1.99
EN 14000	1.35
EMAS	1.14
QC sampling – products	1.62
QC sampling – raw materials	1.63
Quality cycles	1.12
Employee contribution to quality	1.93
FA5. MARKETING	
Formed strategy	1.22
Existence of a distinct Marketing dep.	1.01
Market research	1.02
Relation to other departments	1.02
Group targeting	1.49
Establish brand name	1.04
Internet use	1.16
B2B	1.30
B2C	1.30
Database marketing	1.25
Customer Relationship Management	1.35
FA6. MANUFACTURING	
Time study	1.51
Production line automation	1.25
CIM	1.19
Robot	1.17
Scada	1.19
BPR	1.17
QC automatization	1.20
MRP	1.17
CAD – CAM	1.29
Waste management	1.85

Table 2: Means and rank order for the competitive items per functional area

In our survey, several firms had positioned themselves as high quality providers and have stressed quality to be one of their strong competitive advantages. Although their products are recognized for their quality by Cypriot consumers (Papadopoulos et al. 2007), they do not follow known quality strategies. They consider ISO 9001 to be important and have already started to enter into its concept (mean=1.99) and they encourage employee contribution to quality (mean = 1.93), without applying (or indenting to do so) any methods to systemize it. They seem indifferent to any environmental certification (means 1.14, 1.35).

Advance Manufacturing Technology is out of the plans of most companies, although there appears to be a growing number of CNC purchases the three last years. Waste management, with a mean of 1.85, starts playing an important role. At the time of the survey, a new law about waste management brought new troubles to furniture companies (new waste installations according to EU specifications and plant relocation in some cases). The low mean of CAD – CAM (1.29) was rather a surprise, since in free discussion everybody seemed to care about CAD but they did not even consider entering it in their early future plans.

SOURCES OF COMPETITIVENESS

Concentrating on the functional areas and exploring relationships *between them*, Pearson correlation coefficients were generated (non-parametric Spearman rank correlation coefficients generated very similar results).

Table 3 identifies high positive correlations between marketing and manufacturing competitive areas and Human Resources, indicating a strong dependence of the employees' characteristics and skills in order to

manufacture and promote. There are also clear linkages *between* the two above areas and quality, which confirm the managers' claims that quality is the focal point of their products and their strong competitive advantage.

Competencies	Mean	St Dev.	Correlations					
			FA1	FA2	FA3	FA4	FA5	FA6
FA1	1,2993	,30833	1					
FA2	1,1963	,22716	-,139	1				
FA3	1,6466	,19618	,108	-,081	1			
FA4	1,2155	,29259	-,064	,231*	-,021	1		
FA5	1,6152	,35041	-,113	,353*	-,080	,302*	1	
FA6	1,5330	,24317	,062	,399*	,081	,362*	,303*	1

* Correlation is significant at the 0.01 level (2-tailed).

Table 3: Descriptive statistics and correlations for the functional areas

On the other hand, there appears to be only a weak connection between on – time delivery and market share (cor. coef = 0.179) which is rather surprising, since in free discussion, most managers admit that one of the weaknesses is the delayed deliveries and mention it among the reasons that loose customers. Nevertheless, it does affect quality performance with a coefficient around 0.30 and a sig. value of 0.000, which further confirms the managers' aspects.

The performance means are all slightly above the mid point of 1.5, with Quality performance and on-time delivery to be well above 2. This indicates a positive growth of Cypriot manufacturers. Furthermore, the quite low prices of St. Deviations confirm the homogeneity of the sample.

Of note is the only high positive correlation between Human Relations and on-time delivery (0.324 at sig. = 0.000), which again denotes the importance that is paid to personnel skills and competencies (Table 5). There are no significant correlations between the functional areas of New Product Development and Quality with any performance parameter. While the first is rather expected, the second surprises and calls for further investigation. A not negligible correlation (0.270 and 0.287 respectively with a sig. value of 0.000) shows that overall management and marketing are closely linked to the market share.

Performance	Mean	St Dev.	Correlations			
			BP1	BP2	BP3	BP4
BP1	1,96	,686	1			
BP2	1,54	,746	,017	1		
BP3	2,19	,739	,112	,075	1	
BP4	2,19	,725	,179	-,083	,288*	1

* Correlation is significant at the 0.01 level (2-tailed).

Table 4: Descriptive statistics and correlations for the performance parameters

Two negative results with correlations of medium significance indicate the manufacturing area to be reversely associated with both quality and delivery performance. This can be explained because of the very early use of advanced machinery. Employees as well as management are not familiar with AMT and its

culture. There are delays, malfunctions, defective products etc. The direct results are on quality and delivery time. Yet, table 1 and 2 show CAD to be the most popular manufacturing technology, with the rest playing only very limited roles. This result is consistent with findings that CAD is among the most common and often the first technology implemented (Boyer, 1998, Robb and Xie, 2003).

	<i>Correlation with</i>			
	<i>BP1</i>	<i>BP2</i>	<i>BP3</i>	<i>BP4</i>
<i>FA1</i>	<i>,270**</i>	<i>-,045</i>	<i>,031</i>	<i>,298**</i>
<i>FA2</i>	<i>,098</i>	<i>,002</i>	<i>,010</i>	<i>,324**</i>
<i>FA3</i>	<i>,114</i>	<i>-,010</i>	<i>,103</i>	<i>,178*</i>
<i>FA4</i>	<i>-,193*</i>	<i>-,074</i>	<i>,049</i>	<i>,044</i>
<i>FA5</i>	<i>,287**</i>	<i>,121</i>	<i>,160</i>	<i>,262**</i>
<i>FA6</i>	<i>,154</i>	<i>-,013</i>	<i>-,268**</i>	<i>-,234**</i>
<i>** Correlation is significant at the 0.01 level (2-tailed).</i>				
<i>* Correlation is significant at the 0.05 level (2-tailed).</i>				

Table 5: Correlation between functional areas and performance

No functional area correlates to New Product Introduction. This supports the above mention note that this area is of no interest for Cypriot manufacturers and does not constitute a competitive advantage. Table 5 shows in a most definite way how important the on-time delivery is for the respondents, with 4 out of 6 functional areas having strong or medium relationships to this performance parameter. Finally, table 5 presents a remarkably wide range of correlations (from -0.268 to 0.324) supporting the use of multiple performance measures.

The survey asked the respondents to place themselves in one of the four performance groups according to their opinion. New product development was expanded to “competitiveness on innovation” and on-time delivery to “competitiveness on time – criteria”. The other two groups were named competitiveness on price and quality. All companies placed themselves in either price or quality group, which was rather predictable.

<i>Competencies</i>	<i>Correlations (N=52)</i>					
	<i>FA1</i>	<i>FA2</i>	<i>FA3</i>	<i>FA4</i>	<i>FA5</i>	<i>FA6</i>
<i>FA1</i>	<i>1</i>					
<i>FA2</i>	<i>,378**</i>	<i>1</i>				
<i>FA3</i>	<i>,584**</i>	<i>,291*</i>	<i>1</i>			
<i>FA4</i>	<i>,010</i>	<i>-,303*</i>	<i>-,062</i>	<i>1</i>		
<i>FA5</i>	<i>,398**</i>	<i>,408**</i>	<i>,375**</i>	<i>-,110</i>	<i>1</i>	
<i>FA6</i>	<i>,023</i>	<i>-,056</i>	<i>,060</i>	<i>,110</i>	<i>-,083</i>	<i>1</i>
<i>** Correlation is significant at the 0.01 level (2-tailed).</i>						
<i>* Correlation is significant at the 0.05 level (2-tailed).</i>						

Table 6.1: Correlations for the functional areas for quality - competitive companies

Almost one third of the survey sample (52 out of 145 companies) belonged to the quality group. While there appeared to be some strong correlations among the functional areas (Table 6.1), the performance parameters seemed to have no relationship (Table 6.2), except for on-time delivery which is modestly connected to quality. Although this relationship appears feebler in the case of price – sensitive companies, it leads to the promising conclusion that time starts bothering furniture manufacturers and is seen as a possible winning criterion.

The strong relationship between Marketing and new product releases (Table 6.1) indicates that in Cyprus quality is highly connected to faster changes and new materials or techniques in order to satisfy customer needs. It should though be mentioned that managers referred to new design as well. On the contrary, the negative relationship between an emphasis on the functional area of quality and the one of human resources is somewhat disturbing. This is further stressed by the fact that quality appears not to relate, or to relate to a

negative way to the other functional areas, although the group is the quality competitive one. An explanation could possibly be that Cypriot furniture manufacturers focus on product quality and not on process quality. As seen in Table 2, the questions concentrated in certifications, quality techniques and controls, which fall out of the scope of the questioned small and micro furniture Cypriot firms.

	<i>Competencies</i>		<i>Correlations (N=52)</i>	
	<i>BP1</i>	<i>BP2</i>	<i>BP3</i>	<i>BP4</i>
<i>BP1</i>	1			
<i>BP2</i>	,084	1		
<i>BP3</i>	,165	,090	1	
<i>BP4</i>	,262	-,157	,313 *	1

* Correlation is significant at the 0.05 level (2-tailed).

Table 6.2: Correlations for the performance parameters for quality - competitive companies

Yet, this group shows strong relationships among three out of five functional areas and overall strategy, leaving out manufacturing (besides quality) for similar reasons. Marketing appears to play an important role in overall strategy, human resources and new products (cor. Coef. 0.398, 0.408 and 0.375 at sig. values of 0.002, 0.004, 0.003), revealing its importance for the specific industry.

Marketing and new products correlate modestly to market share (Table 6.3), since they are the media to appeal to customers. The results can surprise anyone who is not familiar to Cypriot mentality of the specific industry. Quality is connected to artisanship, tailor – made products by new materials and fresh design that are promoted in a quality way. These were the advantages that came to light by the free discussion and are verified by the statistical analysis too. Managers do not believe that quality comes through systems and methods and declare that the size and the type of the companies do not permit the competitive items of the manufacturing area.

<i>Correlation with</i>				
<i>N=52</i>	<i>BP1</i>	<i>BP2</i>	<i>BP3</i>	<i>BP4</i>
<i>FA1</i>	,238	-,157	,019	,246
<i>FA2</i>	,025	-,011	-,139	,213
<i>FA3</i>	,280 *	,152	,096	,228
<i>FA4</i>	-,028	-,158	,208	,038
<i>FA5</i>	,341 *	,106	,026	,189
<i>FA6</i>	,273	,050	-,250	-,102

* Correlation is significant at the 0.05 level (2-tailed).

Table 6.3: Correlation between functional areas and performance for quality - competitive companies

The majority of the companies (93 out of the 145 ones) considered themselves as price – competitive. The strongest relationship appeared to be between marketing and overall management (Table 7.1; 0.411 at 0.01 level), indicating that marketing is a competitive priority in this group too. There is also a quite interesting relationship between human resources and new product development, which is rather normal.

<i>Competencies</i>	<i>Correlations (N=93)</i>					
	<i>FA1</i>	<i>FA2</i>	<i>FA3</i>	<i>FA4</i>	<i>FA5</i>	<i>FA6</i>
<i>FA1</i>	1					
<i>FA2</i>	,227*	1				
<i>FA3</i>	,182	,312**	1			
<i>FA4</i>	,144	,070	-,003	1		
<i>FA5</i>	,411**	,258*	,101	-,042	1	
<i>FA6</i>	,066	-,182	-,142	,110	-,211*	1

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Table 7.1: Correlations for the functional areas for price - competitive companies

There is some interesting insight when considering the results of Table 7.3. Quality is negatively related to market share, while the manufacturing competitive area has a negative relationship to quality and on – time delivery. The last result confirms previous remarks on the introduction of AMT and time and quality problems. The notion that quality costs leads to the first result. Manufacturers confront this functional area with scepticism since according to their opinion, quality actions are money and time consuming and because of the companies' size and capability could probably reduce the number of customers ("drive them away if I tell them I will deliver their furniture too late.."). It seems that on – time delivery is a strong winning criterion for this group and it strongly correlates to human resources, a competitive priority of special interest in Cypriot furniture manufacturing.

<i>Competencies</i>	<i>Correlations(N=93)</i>			
	<i>BP1</i>	<i>BP2</i>	<i>BP3</i>	<i>BP4</i>
<i>BP1</i>	1			
<i>BP2</i>	-,115	1		
<i>BP3</i>	,035	,025	1	

BP4	,055	-,067	,260*	1
* Correlation is significant at the 0.05 level (2-tailed).				

Table 7.2 Correlations for the performance parameters for price - competitive companies

N=93	Correlation with			
	BP1	BP2	BP3	BP4
FA1	,218*	-,031	,051	,284**
FA2	,108	-,075	,087	,367**
FA3	-,003	-,132	,087	,067
FA4	-,306**	-,010	-,027	,052
FA5	,177	,040	,210*	,219*
FA6	,053	-,102	-,307**	-,358**
*. Correlation is significant at the 0.05 level (2-tailed).				
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 7.3 Correlation between functional areas and performance for price - competitive companies

The most outstanding feature of these results is that price-competitive companies are stressing delivery/time issues, whereas quality – competitive ones are building a foundation on marketing and new products (mostly of design) and reveal their interest on market share. It is interesting to note how Table 5 (for all companies) encompasses the views of both groups.

To examine the relationship between performance and the importance of the various competitive Functional areas, a multiple regression analysis with the current emphasis of the four performance factors as the dependent variables (see Table 8).

Variable	P-value	Model R2	FA1		FA2		FA3		FA4		FA5		FA6	
			B	Sig	B	Sig	B	Sig	B	Sig	B	Sig	B	Sig
BP1	.000	0.275	0.453	0.093	-.076	0.657	0.091	0.659	-.770	0.006	0.679	0.012	0.421	0.018
BP2	.618	0.284	0.502	0.076	0.450	0.013	0.113	0.603	0.269	0.035	0.211	0.454	-.546	0.004
BP3	.007	0.223	-.290	0.332	-.167	0.379	0.381	0.099	0.289	0.006	-.431	0.150	-.658	0.001
BP4	.000	0.332	-.333	0.292	-.063	0.752	0.002	0.995	-.226	0.486	0.570	0.073	0.056	0.787

Table 8: Multiple Regression Analysis

Quality makes the strongest unique contribution ($p=0.006$, $\beta=-0.770$) to market share, while the marketing and manufacturing areas seem to contribute also strongly (but certainly less) to this performance parameter. Quality performance is strongly and uniquely affected by manufacturing ($p=0.001$, $\beta=-0.658$) and less by the quality functional area ($p=0.006$, $\beta=0.289$). There are no other important relationships among the other two performance parameters (new product introduction and on-time delivery).

Variable	P-value	Model R2	FA1		FA2		FA3		FA4		FA5		FA6	
			B	Sig	B	Sig	B	Sig	B	Sig	B	Sig	B	Sig
BP1	,004	0.294	,246	,030	,102	,372	,341	,600	,050	,655	,097	,349	-,059	,572
BP2	,709	0.142	,016	,898	-,065	,578	,009	,933	,059	,625	-,109	,334	-,159	,166
BP3	,05	0.230	-,048	,679	-,022	,845	,007	,949	,179	,124	-,266	,014	,077	,478
BP4	,00	0.304	,214	,043	,273	,008	,037	,689	,017	,870	-,354	,000	-,084	,395

Table 9.1: Multiple Regression Analysis for price - competitive companies

The results indicate that emphasizing quality, marketing and manufacturing, Cypriot furniture manufacturers enhance their quality performance and market share. Strangely and contrary to other similar studies (Li, 2000) there does not appear any kind of HR's contribution, although correlations proved its importance.

Variable	P-value	Model R2 Adjust	FA1		FA2		FA3		FA4		FA5		FA6	
			B	Sig	B	Sig	B	Sig	B	Sig	B	Sig	B	Sig
BP1	,042	,205	,000	,999	-,185	,241	,213	,229	-,082	-,593	,337	,033	,271	,048
BP2	,076	,194	-,521	,006	-,043	,788	,460	,013	-,159	,268	,117	,456	,182	,856
BP3	,112	,112	-,203	,275	-,111	,492	,331	,073	,204	,161	-,010	,952	-,337	,018
BP4	,218	,101	-,065	,731	,157	,344	,363	,076	,105	,476	-,003	,984	-,147	,301

Table 9.2: Multiple Regression Analysis for quality - competitive companies

Considering the two groups, overall management appears the only functional area that contributes to market share for price competitive furniture companies. Marketing plays a rather important role, since it has a unique strong contribution to quality performance and on – time delivery ($p=0.014$, $\beta=-0.266$ and $p=0.000$, $\beta=-0.354$ respectively). On-time delivery is of vital importance for this group and also strongly affected by human resources and overall management.

Quality makes the strongest contributor to high market share for the quality – focus group ($p=0.033$, $\beta=0.337$), followed by manufacturing. Overall management and the process of new product development affect the new product performance, while quality performance is only affected in a strong and unique way by manufacturing, revealing again the dislike of Cypriot manufacturers for quality processes.

It is quite notable that on – time delivery appears of little interest for this second group, contrary to the first one. No functional area contributes to its prediction. This is due to a common belief in Cyprus that “good things take time”.

CONCLUSIONS

This was the first study devoted to the analysis of manufacturing, product development, marketing, quality, human resources and overall management decisions adopted by Cypriot furniture manufacturers. Responding to the specific industry need for survival and development, this research investigated sources of competitive advantage that could lead to superior performance.

In general, Cypriot furniture manufacturing appears to follow the principles of manufacturing strategy. Competitive advantage seems to be limited in price and quality. The most outstanding feature of the results of this survey is that price-competitive companies are stressing delivery/time issues, whereas quality – competitive ones are building a foundation on marketing and new products (mostly of design) and reveal their interest on market share. Meanwhile quality is the strongest predictor for market share when referring to quality competitive firms. The strong relationship between Marketing and new product releases indicates that in Cyprus quality is highly connected to faster changes and new materials or techniques in order to satisfy customer needs.

Time also starts bothering furniture manufacturers and is seen as a possible winning criterion. On – time delivery strongly correlates to human resources, but not to quality processes. Furthermore, managers do not believe that quality comes through systems and methods and declare that the size and the type of the companies do not permit the competitive items of the manufacturing area. Yet, Quality management starts gaining some attention with ISO 9001:200 being the main concern.

Although four out of the five less important competitive items (with the lowest means) in the 47- item ranking belong to the marketing area, the functional area itself appears to play an important role, especially for the price competitive furniture companies.

The Cypriot furniture sector is still lagging behind in technology and manufacturing. CAD is the only new technology to be implemented mostly by micro firms and it is quite normal: it facilitates designing, stands alone, its costs are coming down rapidly and the benefits are quite clear. This, however, does not mean that advanced technologies are neglected in Cyprus. The number of CNC machinery is constantly growing, but there is still a misuse of them due to lack of proper training and culture and management change, which cause troubles for the time being.

Mature, labour - intensive industries, such as the furniture industry, struggle to survive in the new globalized markets. The present study provides several important implications first and most of all for Cypriot managers and all responsible for the survival and development of the Cypriot furniture industry. The results offer a better understanding of the competitive sources and underscore the strengths and weaknesses of furniture companies in an ever changing business environment. It is also proved that companies need more than one competitive priorities and advantages in order to prosper. Especially for micro and small companies, focusing on a single competitive component is rather dangerous.

The six functional areas with their 47 competitive items, as sources of advantage, are hypothesized to lead to outcomes across a variety of business performance measures. Considering relationships among sources and outcomes of advantage, this study expands previous similar studies, conducted in both industrialized and developing countries, offering more insight on the effects of the several functional areas and arising questions on the differences among the same industry sector across different nations. The last issue could start a new direction of research. Another direction could be the study of the environmental parameters that favour the development of different competitive areas and / or items within the same industry sector in a nation or across nations and industries.

Another possible direction could be a more general specification of competitive items and areas that lead to different desirable competitive advantages (e.g. price, quality and innovation) although there appear to arise several questions to answer, such as whether this list would be general or industry specific, international or nationally dependant. In this direction, the present study encourages further empirical research on the relationships between competitive sources and performance and how these are shaped due to the special economic, legal, and cultural environment in various countries and industries.

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MEASURING THE SEASONALITY WITH THE COMPARISON OF DIFFERENT METHODS IN THE CASE OF TURKISH TOURISM

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Purpose - The Turkish tourism industry is suffering from the seasonality and the problems caused by it. By applying different methods, this study proposes to measure the seasonality in the case Turkish tourism. Studying seasonality and its measurement with the comparison of different methods might first provide useful guidelines for the countries which may have the similar problems and might also broaden the current view in the related literature since the focus is also on the comparison of the widely used methods in the literature.

Design/methodology/approach - This study depends on the current literature and makes evaluations based on the secondary data acquired from the statistical publications of The Turkish Ministry of Culture and Tourism.

Findings - The findings reveal that none of the methods is superior to one another. They complete the weaknesses of one another. Therefore, it is suggested that destinations when measuring the seasonality should make their evaluations on the seasonality by applying different methods in order to make a proper evaluation.

Originality/value - The contribution of the current study to the measurement of the seasonality literature is to employ different methods in an holistic way and reveal the differences and similarities with the comparison of different methods in the case of the Turkish tourist industry.

Keywords: Seasonality, seasonality measurement, Turkish tourism.

Paper type: Conceptual paper.

INTRODUCTION

International tourism is of great importance to the Turkish economy with its creation of foreign exchange earnings, employment, generation of income and regional development effects. For this reason, international tourism has been perceived as a locomotive sector of the Turkish economy since the 1980s and has been supported with generous investment incentives by the Turkish governments (Karamustafa, 2000). This governmental support has helped to increase the bed capacity of the Turkish tourism industry more than 10 folds (TURSAB, 2009a). Parallel to the increase of the bed capacity, the number of visitors visiting the Turkish coastal tourist destinations increased with the creation of considerable net foreign exchange earnings. However, the uncontrolled increase of the bed capacity and its uncontrolled concentration on the coastal regions has emerged the seasonality problem in the Turkish tourist industry. This is to say that despite to the increased numbers of accommodation establishments and tourists, the distribution of tourist numbers to the months of year is chaotic. The number of tourists visiting Turkey is very large particularly during the summer months; however, it goes down during the rest of the year resulting disequilibrium between the bed supply and the tourist demand (Unluonen, Kara and Tokmak, 2008). This creates problem particularly for the accommodation establishments which suffers from the idle capacity problem for most of the year, particularly on the coastal areas which consist of approximately 75% of the licensed bed capacity (TURSAB, 2009b). For this reason, within the framework of Turkish tourism, studying the seasonality is of importance for the accommodation establishments in general (Koc and Altinay, 2007).

There are number of studies focusing on the affects of the seasonality on employment (Ball, 1988; Lee-Ross, 1999; Hinch and Jackson, 2000; Flognfeldt, 2001; Nesheim, 2003; Getz and Nilsson, 2004). Krakover (2000) has studied the relationship between the factors causing changes on the number of employees working in Israeli hotels and the tourism demand. The variables has been investigated can be categorized as international and domestic tourist demand, occupancy rates, seasonality indices and long term trends. The study of Krakover indicates that there is a negative correlation between the changes in employee numbers and the occupancy rates. To sum up, it has been revealed that when the occupancy rates decrease as a result of the seasonality, the number of employees fired increases. Ashworth and Thomas (1999) analyzed the employment strategies

developed against the seasonality in the UK between 1982 and 1996. According to the results, an improvement occurred in the number of tourist stays during the above mentioned period; hence, the negative affect of seasonality on tourism employment decreased by 30% for the summer term and 24% for the winter term. One of the most important problems related to the seasonal employment is to hire and keep the full-time skilled human resources. This results with the direction of low-educated, unskilled and semi-skilled workforce to the industry. This causes to the unsustainability of the service quality (Koenig and Bischoff, 2004; Koenig and Bischoff, 2005; Jolliffe and Farnsworth, 2006). From this argument, it can be concluded that the seasonality in tourism is of great importance to examine since it creates economic and social problems as well as with the negative effects on service quality in the tourism industry. Hence, the importance of measuring the seasonality in tourism.

By using various statistical methods, seasonality can be measured (Sutcliffe and Sinclair, 1980; Drakatos, 1987; Donatos and Zairis, 1991; Uysal, Fesenmaier and O'Leary, 1994; Grainger and Judge, 1996; BarOn, 1999; Coenders, Espinet and Saez, 2001; Bender, Schumacher and Stein, 2005) and seasonal demand can be forecasted (Kulendran and King, 1997; Chen and Fomby, 1999; Grubb and Mason, 2001; Lim and McAleer, 2001a; Lim and McAleer, 2001b; Goh and Law, 2002; Ahas, Aasa, Mark, Pae and Kull, 2007). Depending upon the number of foreign tourist arrivals, as the demand can be forecasted for the whole destination, it can also be done for the accommodation establishments in the same way. Hence, measuring the seasonality and forecasting the seasonal tourist demand have been paid attention widely in the above given literature. This kind of studies conducted mostly by focusing on the number of foreign tourist arrivals. Though studies measuring the seasonality has generally focused on only one method. The current study aims to contribute to the measurement of the seasonality literature by employing different methods in an holistic way and reveal the differences and similarities with the comparison of different methods in the case of the Turkish tourist industry.

WHAT IS TOURISM DEMAND?

Tourism demand can be defined as the number of people who are willing to travel and have the amount of money that meets their travel willingness. Characteristics of tourism demand can be summarized as follows (Olali and Timur, 1988):

(a) Tourism demand is heterogeneous, meaning that the needs and wants of those vary from one person to another depending upon the travel aim as well as their social, cultural, economic and demographic features.

(b) Tourism demand requires to be used personal disposable income.

(c) There is a very high competition between the demand for luxury products and tourism; in other words, tourism demand can easily be substituted by various luxury and other recreational products.

(d) Its substitutability and impacts of economic, social, political and financial factors increase the elasticity of demand for tourism.

(e) There is a fierce competition even among the tourism products themselves. This happens actually depending upon the individual preferences of those who are willing to travel. The competition between the length of stay and the travel distance affects the amount allocated to the accommodation and to the transportation; hence results with the competition between the accommodation and the transportation. In other words, tourist generating countries and the tourist destinations compete with each other since the travel distance increases, the length of stay decreases.

(f) It is seasonal and concentrates on specific seasons.

Tourism demand is affected by several factors such as (Bozok, 1996): (a) economic (level of disposable income, cost of travel, travel distance, availability and the quality of tourist facilities in destinations); (b) socio-demographic (population structure, age, urbanization, professions, educational level, leisure time); (c) politics and legislation (restrictions on tourist movements, politic relations between the origin and the destination); (d) psychological (travel motivation, tourist needs and typologies).

Correct demand forecast is one of the most important duties of the marketers. Demand forecast requires to indicate the level of demand concentrated on specific time periods. Demand forecast is required: (a) to provide data for decision makings; (b) to be precise; (c) not to be at high costs; and (d) to be able to be updated easily. Many firms can forecast demand for various purposes. Demand forecast can guide a firm in applying strategies; with the evaluation of demand forecast, it can be detected which market to enter. In this respect, demand forecast carries out two main functions (Lumsdon, 1997): (a) the first is to contribute to the allocation of the resources effectively to the marketing efforts and applications; and (b) the second is to reduce the risk of the strategies for the future.

Demand for the accommodation establishments varies daily, weekly and monthly from time to time. In this study, the focus will be on the monthly basis. Tourist demand change occurs depending upon the economic, social and political variables. Forecasting future requires planning in order to take decisions. Accommodation establishments can forecast the room and the bad occupancy rates depending upon the estimated number of tourist arrivals (Koenig and Bischoff, 2004). Widely used demand forecasting methods can be grouped into two (Cuhadar and Kayacan, 2005): (1) the qualitative ones; and (2) the quantitative ones. Qualitative methods include (a) traditional questionnaire technique, (b) Delphi technique and (c) multi-decisional supported model. Quantitative methods consist of (a) time series and trend analysis, (b) computer systems and simulation techniques, (c) demand creative techniques and (d) multivariable regression analysis.

As being one of the widely used quantitative demand forecasting methods, the time series and trend analysis takes into account the seasonal variations, hence it is one of the most suitable techniques to forecast the seasonal demand. Time series occur with the statistical data observed and recorded periodically. These series are the data derived from observations regarding the areas such as tourism revenues, number of tourists, number of nights stayed, tourist expenses and tourism employment. Decision making bodies of a destination country may require information on the variability of tourist movements by years. Depending upon the number of tourist arrived in the previous years, the number of tourist arrivals in the future can be estimated. This method is used with the assumption that the future events will occur as heretofore. The basics of time series depend upon finding out the reasons for any irregular movements and fluctuations in the series (Icoz and Kozak, 1998; Halpern, 2007).

In general time series consist of four parts as being trend (T), seasonal variation (S), cyclical variation (C) and irregular variation (I). A trend can be either a linear or a curve which can either rise or fall in a given time period. All values in a time series cannot be expected to be on the trend linear or curve. Some values can be on the trend linear or its under. Cyclical variations consist of the values which are clearly on or under the trend linear in years. Trend and cyclical variations can be determined by analyzing the variations in number of years; seasonal variations can be determined by analyzing the stable variations observed regularly in a period of the year or seasonal. Irregular variations in time series consist of the fluctuations outside the trend, cyclical variations and seasonal variations (Anderson *et al.*, 1993). According to traditional time series model, number of tourist arrived can be formulized as $T \times S \times C \times I$ (Mansfield, 1994).

However, in order to forecast the seasonal demand it may be necessary to measure the seasonality. By measuring the seasonality, dimensions of the seasonality can be determined and later seasonal demand can be forecasted. In this respect, since the seasonality is an important issue for the accommodation establishments, measuring the seasonality is also gaining importance (Allcock, 1989). Efforts to extent the peak tourist season can be successful depending upon the determinations of seasonal demand structures which can be used to make regional comparisons (Donatos and Zairis, 1991; Hingham and Hinch, 2002). Seasonal demand structure can be determined by calculating the seasonality ratio derived from the number of tourist arrivals and occupancy rates and by also drawing the graphics of the seasonal fluctuations (Goulding and Gunn, 2000). Hence, the months of the year can be determined as being *the peak season*, *the shoulder season* and *the off-peak season* (Yacoumis, 1980).

MEASURING THE SEASONALITY

As Butler and Mao (1997) classify, there are three different types seasonality: (a) one-peak, (b) two-peak, and (c) non-peak. Mediterranean countries whose tourism demand is primarily driven by the sun and warm weather follow a one-peak pattern characterized by a pronounced peak season in the summer months. Two-peak seasonality occurs when there are two seasons. Non-peak seasonality means the tourism is not seasonal indicating that tourism activities occur whole year around. In order to calculate the peak season a simple method can be proposed. If some months of the year are systematically above the trend and seasonal index is greater than one, the mentioned term can be called as the peak season (Fernández-Morales, 2003). Seasonal index is an indicator to indicate the degree of seasonal variations. Seasonal index shows increases and decreases of the demand comparing to the average during the season (Celikcapa, 1999; Nadal, Font and Rosselló, 2004; Lim and McAleer, 2008). Main indicators which can be used to measure seasonality are; (a) Seasonality Ratio, (b) Seasonality Indicator, (c) The Gini Coefficient and (d) Seasonality Index.

Seasonality Ratio

Yacoumis (1980) calculated the seasonality ratio in the study of seasonality in the tourism industry of Sri Lanka. He established a graphic depending upon these ratios, hence determined the seasonal demand structure which can be benefited to understand whether the seasonality shows schematic similarities among the years or not. Seasonality ratios and graphics can be used to compare either seasonal demand or regional demand or among the tourist markets themselves.

Determining the peak-, shoulder- and off-peak seasonal months for the whole country is important to indicate which strategies to apply in which months of the year. Determination of the peak-, shoulder- and off-peak seasons by months at regional level is important to the accommodation establishments in order to decide which strategies to apply. This can also be beneficial for the benchmarking both for the similar regions and the similar type of accommodation establishments.

Depending upon the Yacoumis' calculations, Turkey's tourism seasonality ratios are calculated in Table 2 for the years between 1995 and 2007. First, monthly seasonal indices have been found by dividing the number of tourists arrived in a given year by months to the monthly average number of tourist arrivals in the given year.

<i>Months</i> <i>Years</i>	1	2	3	4	5	6	7	8	9	10	11	12	Total	Average
1995	275	302	368	535	732	810	1,009	1,070	1,055	836	393	340	7,727	644
1996	284	325	537	556	875	902	1,106	1,154	1,117	909	452	396	8,614	718
1997	301	314	555	640	1,021	1,046	1,206	1,405	1,297	947	538	418	9,689	807
1998	346	372	477	642	986	1,063	1,288	1,460	1,209	1,035	503	371	9,753	813
1999	359	372	409	427	691	785	932	1,079	876	801	436	321	7,487	624
2000	334	354	435	721	986	1,079	1,526	1,419	1,369	1,178	602	424	10,428	869
2001	359	405	547	885	1,232	1,388	1,777	1,601	1,440	1,066	521	398	11,619	968
2002	307	426	676	853	1,326	1,458	1,897	1,900	1,771	1,420	663	560	13,256	1,105
2003	364	481	500	669	1,146	1,511	2,131	2,275	1,874	1,658	776	644	14,030	1,169
2004	534	608	784	1,104	1,799	1,898	2,591	2,493	2,125	1,842	949	789	17,517	1,460
2005	700	697	1,107	1,348	2,302	2,403	3,181	2,861	2,502	2,108	1,053	862	21,125	1,760
2006	667	627	922	1,373	1,919	2,369	3,110	2,906	2,267	1,714	1,020	927	19,820	1,652
2007	714	787	1,100	1,521	2,288	2,774	3,624	3,384	2,799	2,153	1,177	1,019	23,341	1,945

Table 1. Number of Turkish Tourist Arrivals by Months (,000 in persons). **Source:** Derived from <http://www.kultur.gov.tr/TR/BelgeGoster.aspx?F6E10F8892433CFF2B81939FD5B60AFAFFDE13C621852F44>

Secondly, by dividing the highest seasonal index in the given year has been divided by the average seasonal index, hence the seasonality ratio has been calculated. For example, seasonality ratio for the year 2007 has been calculated as follows;

- a) Determination of the seasonal index by months: the number of tourist arrivals in January 2007 has been divided by the average number of tourist arrivals in that year. $714.425 / 1.945.076 = 37\%$. For the rest of the months of the year seasonality indices can be calculated in the same way.
- b) The highest seasonal index for the year 2007 (July) has been divided by the average seasonal index (the average index value is 100) ($186 / 100$), hence the seasonality ratio for the year 2007 is 1.86.

Months \ Years	1	2	3	4	5	6	7	8	9	10	11	12	Seasonality Ratios
1995	43	47	57	83	114	126	157	166	164	130	61	53	1.66
1996	40	45	75	77	122	126	154	161	156	127	63	55	1.61
1997	37	39	69	79	126	130	149	174	161	117	67	52	1.74
1998	43	46	59	79	121	131	159	180	149	127	62	46	1.80
1999	58	60	66	68	111	126	149	173	140	128	70	51	1.73
2000	38	41	50	83	114	124	176	163	157	136	69	49	1.76
2001	37	42	57	91	127	143	184	165	149	110	54	41	1.84
2002	28	39	61	77	120	132	172	172	160	129	60	51	1.72
2003	31	41	43	57	98	129	182	195	160	142	66	55	1.95
2004	37	42	54	76	123	130	178	171	146	126	65	54	1.78
2005	40	40	63	77	131	136	181	163	142	120	60	49	1.80
2006	40	38	56	83	116	143	188	176	137	104	62	56	1.88
2007	37	40	57	78	118	143	186	174	144	111	61	52	1.86

Table 2. Seasonality Ratio (1995–2007).

It is possible to show seasonality ratios of two different years on a graphic. Seasonality ratios of 1998 and 2007 are given in Figure 1. Those two years, in which seasonality ratios are different, indicate a similar seasonal demand structure on the graph.

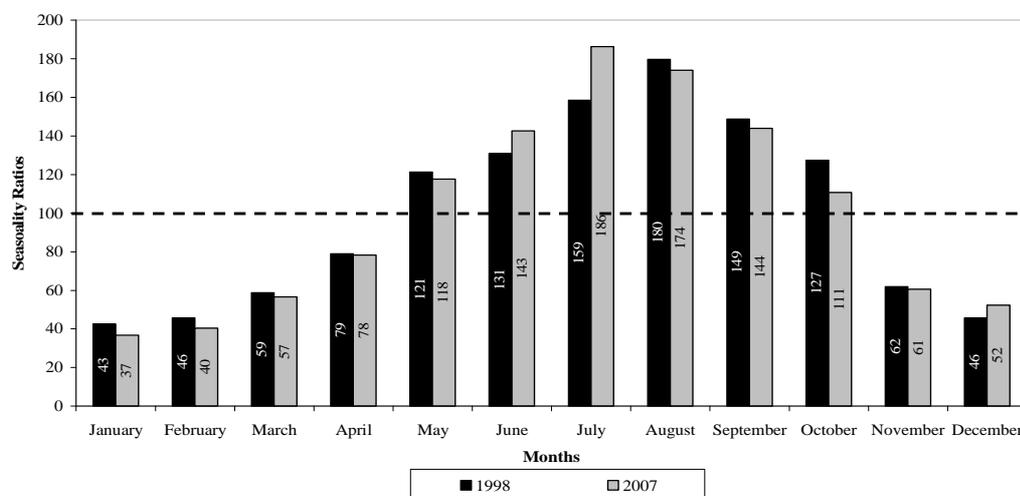


Figure 1. Seasonal Ratios by Months (1998 and 2007).

As can be noticed from Figure 1, seasonality indices for some months are higher than the average (the peak season months), for some months are close to the average (the shoulder season months) and for some months are below the average (the off-peak season months). According to this, July-August-September are the peak-season months, May-June-October are the shoulder season months, November-December-January-February-March-April are the off-peak season months for Turkey.

Theoretically, seasonality ratio can vary from 1 to 12. If the number of visitors arriving is constant for every month then the seasonality ratio will be 1. If the number of visitors arriving concentrate on a month then the seasonality ratio will be 12. In this respect, it can be said that when the seasonality increases seasonality ratio will increase.

Seasonality Indicator

Since the occupancy rates are accepted as the indicator of accommodation establishments' performances, the seasonality ratio cannot be satisfactory in making comparisons (Jeffrey and Barden, 2000). For this reason, seasonality indicator (ω : omega), which is the reverse version of the seasonality ratio, can be used. Seasonality indicator can be calculated by dividing the average seasonality index to the highest seasonal index which can be interpreted easily. As during the peak season, when the accommodation establishments are fully occupied, the highest accommodation number refers to the capacity of the accommodation establishments (Koenig and Bischoff, 2004). Since the seasonality indicator refers to the accommodation number depending upon the capacity, it indicates the average occupancy rate. In this respect, seasonality indicator can be seen as a capacity use measure. For instance, if the seasonality indicator is 0.5, this means that only 50% of the accommodation capacity is used. If the highest accommodation number is smaller than the capacity, seasonality indicator refers to the relative capacity use for the given year (Lundtorp, 2001). Theoretically, seasonality indicator can vary from 1/12 to 1. If the number of visitors arriving is constant for every month then the seasonality indicator will be 1. If the number of visitors arriving concentrate on a month then the seasonality ratio will be 1/12. In this respect, it can be said that when the seasonality increases seasonality ratio will decrease.

As mentioned above, the calculation of the seasonality indicator is reverse to the calculation of the seasonality ratio, therefore, the average index value (100) is divided by the highest seasonal index. In Table 3, by taking into account the calculated seasonal index values, seasonality indicators have been calculated for the year 2007: the average index value (100) has been divided by the highest seasonal index value for the year 2007 (seasonal index for July = 186) ($100 / 186$), hence the seasonality indicator for the year 2007 is 0.54. In Table 3, seasonality indicators, calculated depending upon the values in Table 2, are given.

Months Years	1	2	3	4	5	6	7	8	9	10	11	12	Seasonality Indicator
1995	43	47	57	83	114	126	157	166	164	130	61	53	0.60
1996	40	45	75	77	122	126	154	161	156	127	63	55	0.62
1997	37	39	69	79	126	130	149	174	161	117	67	52	0.57
1998	43	46	59	79	121	131	159	180	149	127	62	46	0.56
1999	58	60	66	68	111	126	149	173	140	128	70	51	0.58
2000	38	41	50	83	114	124	176	163	157	136	69	49	0.57
2001	37	42	57	91	127	143	184	165	149	110	54	41	0.54
2002	28	39	61	77	120	132	172	172	160	129	60	51	0.58
2003	31	41	43	57	98	129	182	195	160	142	66	55	0.51
2004	37	42	54	76	123	130	178	171	146	126	65	54	0.56
2005	40	40	63	77	131	136	181	163	142	120	60	49	0.55
2006	40	38	56	83	116	143	188	176	137	104	62	56	0.53
2007	37	40	57	78	118	143	186	174	144	111	61	52	0.54

Table 3. Seasonality Indicators (1995-2007).

Seasonality ratio and seasonality indicator can be criticized as being affected by the highest monthly value. This means that while the number of arrivals or the occupancy rates are close to the average in most of the months, in some months of the year they can be very high and causing to the high seasonality rates and seasonality indicators. Because of this, the Gini coefficient can be suggested to measure the seasonality.

The Gini Coefficient

This is the most commonly used measure of inequality. The coefficient varies between zero, which reflects complete equality, and 1, which indicates complete inequality. Graphically, the Gini coefficient can easily be represented by the area between the Lorenz curve and the line of equality (Lundtorp, 2001). In Table 4, the numbers of tourist arrivals by months are given. The Lorenz curve has been provided in Figure 2 from the figures in Table 4. The numbers of monthly tourist arrivals have been divided by the total number of tourist arrivals within the given year, hence the monthly tourist arrival ratios have been calculated. These ratios have been ranked from low value to high value and the cumulative values of these ratios have been calculated. The Lorenz curve in Figure 2 has been drawn depending upon these ratios.

<i>Months</i>	<i>Years</i>	<i>1998</i>	<i>2007</i>
<i>January</i>		346,183	714,425
<i>February</i>		371,526	787,048
<i>March</i>		476,756	1,099,960
<i>April</i>		642,332	1,520,954
<i>May</i>		986,237	2,287,645
<i>June</i>		1,062,961	2,774,076
<i>July</i>		1,288,439	3,624,156
<i>August</i>		1,460,075	3,384,065
<i>September</i>		1,209,256	2,799,276
<i>October</i>		1,035,237	2,152,908
<i>November</i>		502,638	1,177,475
<i>December</i>		371,057	1,018,923
<i>Total</i>		9,754,695	23,342,914

Table 4. *Tourist Arrivals by Months (1998 and 2007). Source: Derived from*

<http://www.kultur.gov.tr/TR/BelgeGoster.aspx?F6E10F8892433CFF2B81939FD5B60AFAFFDE13C621852F44>

The Lorenz curve in Figure 2 shows the distribution of tourist numbers against the months of years. If the distribution of tourist numbers were equal, the plot would show as a straight, 45° line. For instance, during the first three quarter of a year (corresponding to the first nine months), 75% of the total tourist arrivals would occur. However, unequal distributions has yielded a curve. The gap between this curve and the 45° line is the inequality gap, this is because the number of tourist arriving each month is not equal. In some months of the year the number of tourist arrivals is low (for instance, in the case of Turkey, the winter months), while in some months it is high (for instance, in the case of Turkey, the summer months) and hence an unequal distribution of tourist arrivals among the months of the year. As can be seen from the Figure 2, the number of tourist arrivals in the first three quarter of 1998 (the first nine months of 1998) consisted of 61% of the total tourist arrivals. However, the number of tourist arrivals in the first three quarter of 2007 (the first nine months of 2007) consisted of 58% of the total tourist arrivals. Depending upon these results, it can be said that the inequality of tourist arrivals among the months is higher in 2007 comparing to 1998.

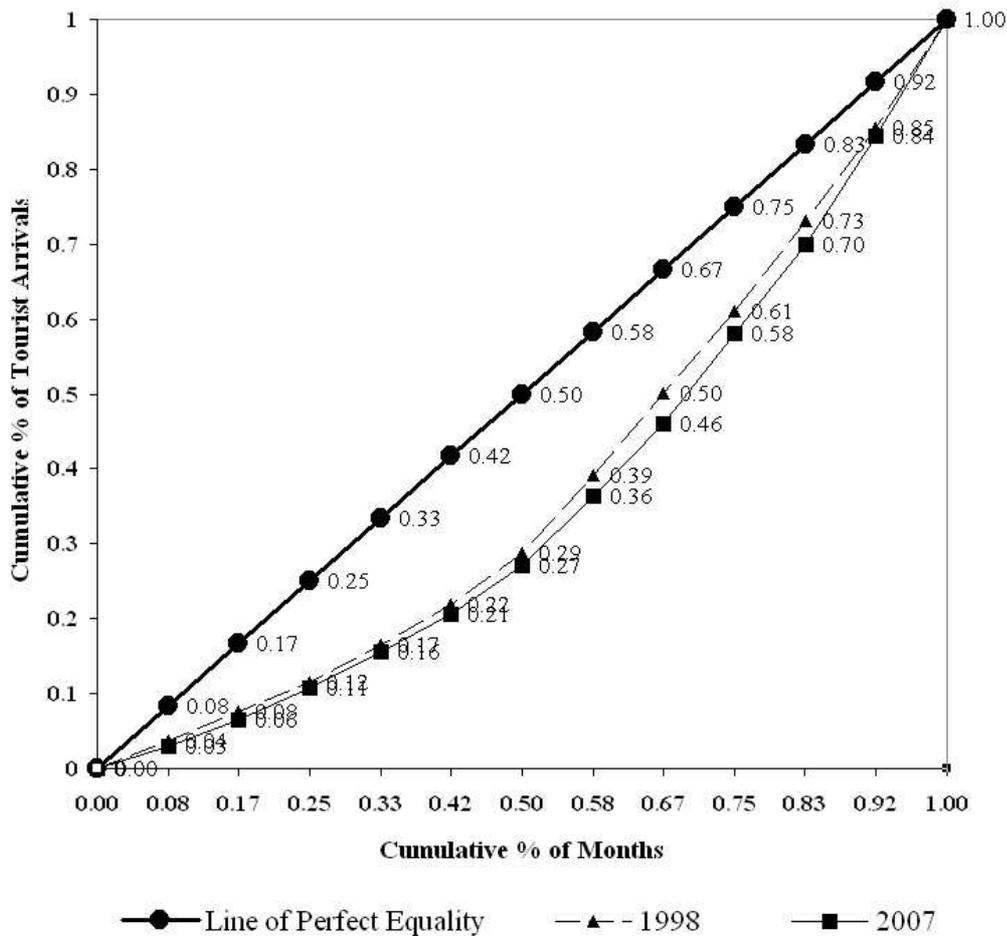


Figure 2. Lorenz Curves – 1998 and 2007 Tourist Arrival Ratios

The unequal distribution of the number of tourist arrivals can be understood from the distance of the curve from the 45° straight line in Figure 2. How much distribution of actual number of tourist arrivals yields a curve, it means that distribution of number of tourist arrivals shows that much inequality (Dinler, 2003). As can be seen from Figure 2, the curve of 2007 has yielded more that the curve of 1998.

Another way to evaluate the unequal distribution of tourist arrivals depends on the Gini coefficient, which also benefits from the Lorenz curve. In this respect, the Gini coefficient (G) is the proportion of the area left between the 45° straight line and the curve to the total area of above (the area left between the 45° straight line and the curve) and below the curve. As shown in Figure 3, the Gini coefficient is the proportion of area A to the total of areas A and B; can be formulized as $G = A / [A+B]$ (Unsal, 2003).

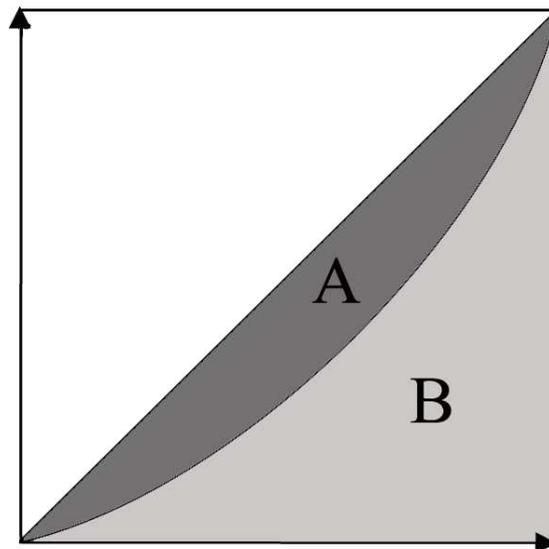


Figure 3. Calculation of the Gini Coefficient in the Lorenz Curve

The Gini coefficient implies the inequality as a ratio. Greater the ratio, greater the unequal monthly distribution of tourist arrivals. A zero ratio indicates an perfect equality. The value of 1 for the Gini coefficient means that there is a full unequal distribution of number of tourist arrivals by months. As the coefficient gets closer to 1, the inequality increases (Unay, 1997). The formula used in the calculation of the Gini coefficient is explained below (Lundtorp, 2001).

$$G = \frac{2}{n} \sum_{i=1}^n (x_i - y_i)$$

n = ratio value (in the case of this study, number of months = 12).

x_i = ratio order (i.e. 1/12, 2/12, , 12/12).

y_i = cumulative actual ratios in the Lorenz curve.

By using this formula, the Gini coefficients for 1998 and 2007 have been calculated as 0.25 and 0.29, respectively. It has been indicated that the inequality of the monthly distribution of number of tourist arrivals is higher in 2007 comparing to that of 1998. In other words, what is clear here is that as the Gini coefficient increases, the level of seasonal concentration increases (Fernández-Morales, 2003).

As the Gini coefficient can be calculated for each year, it can also be calculated for the different nationalities staying in the accommodation establishments. In this respect, the Gini coefficient may help the accommodation establishments to apply appropriate marketing strategies on seasonality for various markets (Fernández-Morales, 2008). The nationalities given in Table 5 indicate the first twelve nationalities stayed in the Turkish accommodation establishments between the years of 2000 and 2006. The nationalities ranked in descending order by the number of visitors stayed in the accommodation establishments.

NATIONALITY	2000	2001	2002	2003	2004	2005	2006
German	0.28	0.22	0.23	0.20	0.16	0.14	0.19
Citizens of the Commonwealth of Independent States	0.29	0.24	0.33	0.35	0.33	0.34	0.37
French	0.34	0.33	0.33	0.33	0.29	0.26	0.29
Dutch	0.51	0.51	0.36	0.31	0.35	0.36	0.33

British	0.36	0.41	0.33	0.34	0.38	0.40	0.36
American	0.25	0.24	0.22	0.21	0.22	0.19	0.17
Japanese	0.22	0.25	0.17	0.34	0.21	0.10	0.05
Italian	0.38	0.43	0.38	0.36	0.30	0.27	0.26
Belgian	0.58	0.43	0.33	0.37	0.38	0.35	0.30
Australian	0.42	0.42	0.39	0.45	0.30	0.32	0.35
Israeli	0.48	0.27	0.33	0.42	0.29	0.26	0.27
Spanish	0.35	0.42	0.44	0.51	0.42	0.31	0.39

Table 5. The Gini Coefficients by Nationality (2000-2006)* **Source:** Derived from <http://www.kultur.gov.tr/TR/BelgeGoster.aspx?F6E10F8892433CFF2B81939FD5B60AFAEF224863CBA28A8C> *. Calculations are based on the number of foreign tourist arrivals by nationalities.

According to the figures in Table 5, Germans are ranked first in terms of tourists staying in the accommodation establishments and the Gini coefficient for German tourists staying in the accommodation establishments showed a diminishing trend between 2000 and 2006. In this respect, it can be said that German tourists staying in the accommodation establishments have not concentrated on some months of the years; comparing to other nationalities, their stays have showed a trend of an equal distribution among the months of the years. However, on the other hand, the citizens of the Commonwealth of Independent States are ranked second in terms of tourists staying in the accommodation establishments and the Gini coefficient for those staying in the accommodation establishments showed an increasing trend between 2000 and 2006. In this respect, it can be said that tourists from the Commonwealth of Independent States staying in the accommodation establishments have concentrated on some months. This kind of analyses may produce useful guidelines for the accommodation establishments in determining the right marketing strategies on seasonality when deciding to choose which tourist market to enter.

Seasonality indicator is mostly affected by the time period of the highest tourist arrivals. However, although the Gini coefficient is affected by the time period of the highest tourist arrivals, this affect is not significant. It is worth noting that neither the Gini coefficient nor the seasonality indicator values show the lowness of the seasonal fluctuations. For this reason, it is appropriate to examine the seasonal fluctuations on a figure (Lundtorp, 2001). The ratios of monthly tourist arrivals in 1998 and 2007 in Figure 4 derived from the figures in Table 1 and assumed as the number of stays in the accommodation establishments. The highest monthly tourist arrival ratio has been assumed as the capacity of the accommodation supply. This is because, as mentioned previously, the highest monthly tourist arrival ratio can be accepted as the maximum use of the accommodation capacity.

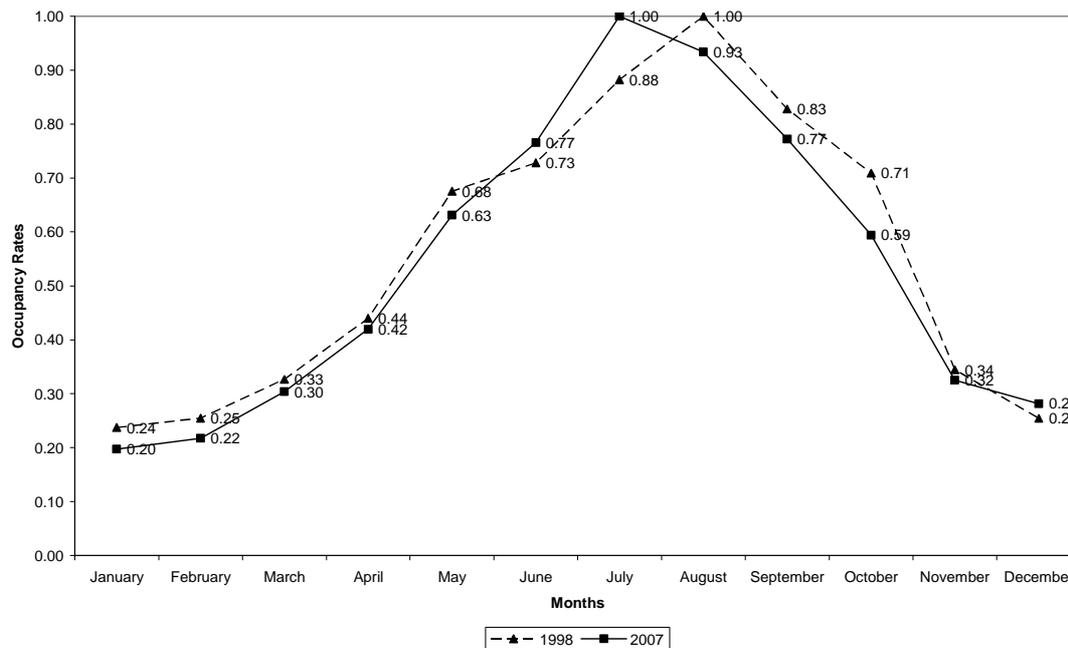


Figure 4. Seasonal Distribution of Tourist Numbers (1998 – 2007)

Seasonal fluctuations among the months in 1998 and 2007 have similarities. As can be seen from Figure 4, the months of January-February-March-April, both in 1998 and 2007, are *the first off-peak seasonal months*. May and June show a trend of increase in the accommodation ratio. These months can be called as *the first shoulder-seasonal months*. July-August-September are the months in which the accommodation establishments reach to full capacity use or very close to it. Hence, these months can be called as *the peak-season months*. However, October is the month in which the accommodation ratio decreases, therefore, it can be called as *the second shoulder-seasonal month*. November and December are the months in which the accommodation ratio reaches its lowest value and these months can be called as *the second off-peak seasonal months*. In Figure 4, the seasonal fluctuation of 1998 shows lowness comparing to the seasonal fluctuation of 2007. The seasonality indicator is 0.56 in 1998 and 0.54 in 2007. The Gini coefficient was calculated 0.25 for 1998 and 0.29 for 2007. Reduction of the inequality among the months can be possible as the Gini coefficient closes to zero or the seasonality indicator closes to 1. Depending upon the Gini coefficients, the seasonality indicators and Figure 4, it can be said that the unequal distribution of number of tourist arrivals in 1998 is less comparing to that of 2007. In this respect, it can be asserted that seasonality fluctuations during this 10-year period has increased to some extent.

The Gini coefficient is an useful tool indicating the inequality in the distribution of number of tourist arrivals. However, the distribution of number of tourist arrivals occurs together with trend (T), seasonal (S), cyclical (C) and irregular (I) fluctuations. In this respect, the Gini coefficient can be criticized as being insufficient in determining the monthly distribution of tourist arrivals since it takes into account only seasonal fluctuations. Therefore, distribution of monthly tourist arrivals are needed to be decomposed from the affecting factors such as trend (T), seasonal (S), cyclical (C) and irregular (I) fluctuations. This kind of decomposition can be done by the seasonality index which is calculated through the method moving averages.

Seasonality Index (Time Series Model)

By applying the method of moving averages, monthly seasonality index can be calculated. When this method is applied, it is possible to decompose distribution of monthly tourist arrivals from trend (T), seasonal (S), cyclical (C) and irregular (I) fluctuations (DeLurgio, 1998). It can be useful to explain this

method with an example which is given in Table 6 depending upon the number of monthly tourist arrivals between 2003 and 2007.

Calculation of the seasonality index:

- First, the moving average tourist arrival for the first 12 months is calculated [$(363.983 + 481.252 + 499.663 + 669.288 + 1.146.309 + 1.510.951 + 2.130.949 + 2.275.055 + 1.874.329 + 1.657.726 + 776.181 + 643.872) / 12 = 1.169.130$]. The same calculation continues for the next 12 months until the last 12 months.
- Subsequently, the central moving averages are calculated; i.e. [$(1.169.130 + 1.183.272) / 2 = 1.176.201$].
- In order to calculate the seasonality index the number of tourist arrivals is divided by the central moving averages.

According to the traditional time series model, real value of the tourist arrivals equals to the values of the formula of $(T \times S \times C \times I)$. Moving average approximates to the value of $(T \times C)$. Ratio of number of tourist arrivals to the central moving average is an estimation of the value of $(S \times I)$ (see column 6 in Table 6). Since the ratios in column 6 in Table 6 consist of seasonal and the irregular fluctuations, it requires to be decomposed from the irregular fluctuations. In order to do that, median value of ratios for each month is calculated. In Table 7, calculated monthly seasonal indices are arranged in order and median values are calculated. Monthly median values are needed to be rearranged by multiplying with the 12 month average ($1200=12 \times 100$). These rearranged values are accepted as monthly seasonal indices. This calculation can be summarized as follows (Mansfield, 1994);

- median values are calculated,
- calculated median values of each month is multiplied with the number of 1200 (12×100) and the result is divided by the total of median values,
- and the result is the monthly seasonal index.

Year	Months	Number of Tourist Arrivals	12 Months Moving Average ^a	Central Moving Average ^b	Ratio of Number of Tourist Arrivals to The Central Moving Average ^c
(1)	(2)	(3)	(4)	(5)	(6) = [(3) / (5)]
2003	January	363,983			
	February	481,252			
	March	499,663			
	April	669,288			
	May	1,146,309			
	June	1,510,951	1,169,130		
	July	2,130,949	1,183,272	1,176,201	1.812
	August	2,275,055	1,193,823	1,188,548	1.914
	September	1,874,329	1,217,526	1,205,674	1.555
	October	1,657,726	1,253,775	1,235,651	1.342
	November	776,181	1,308,177	1,280,976	0.606
	December	643,872	1,340,467	1,324,322	0.486
2004	January	533,694	1,378,816	1,359,641	0.393
	February	607,854	1,396,961	1,387,889	0.438
	March	784,107	1,417,852	1,407,407	0.557
	April	1,104,270	1,433,232	1,425,542	0.775
	May	1,799,130	1,447,618	1,440,425	1.249
	June	1,898,435	1,459,742	1,453,680	1.306
	July	2,591,140	1,473,640	1,466,691	1.767
	August	2,492,794	1,481,039	1,477,340	1.687

	September	2,125,025	1,507,976	1,494,508	1.422
	October	1,842,277	1,528,309	1,518,143	1.214
	November	948,815	1,570,247	1,549,278	0.612
	December	789,367	1,612,287	1,591,267	0.496
2005	January	700,469	1,661,425	1,636,856	0.428
	February	696,643	1,692,121	1,676,773	0.415
	March	1,107,348	1,723,546	1,707,833	0.648
	April	1,348,264	1,745,723	1,734,634	0.777
	May	2,302,389	1,754,368	1,750,045	1.316
	June	2,402,912	1,760,407	1,757,388	1.367
	July	3,180,802	1,757,646	1,759,027	1.808
	August	2,861,141	1,751,806	1,754,726	1.631
	September	2,502,123	1,736,352	1,744,079	1.435
	October	2,108,398	1,738,407	1,737,379	1.214
	November	1,052,561	1,706,442	1,722,424	0.611
	December	861,836	1,703,585	1,705,013	0.505
2006	January	667,337	1,697,662	1,700,623	0.392
	February	626,565	1,701,385	1,699,523	0.369
	March	921,892	1,681,803	1,691,594	0.545
	April	1,372,922	1,648,930	1,665,366	0.824
	May	1,918,809	1,646,225	1,647,577	1.165
	June	2,368,628	1,651,653	1,648,939	1.436
	July	3,109,727	1,655,577	1,653,615	1.881
	August	2,905,817	1,668,950	1,662,264	1.748
	September	2,267,146	1,683,789	1,676,370	1.352
	October	1,713,916	1,696,125	1,689,957	1.014
	November	1,020,106	1,726,862	1,711,494	0.596
	December	926,968	1,760,649	1,743,755	0.532
2007	January	714,425	1,803,518	1,782,084	0.401
	February	787,048	1,843,372	1,823,445	0.432
	March	1,099,960	1,887,716	1,865,544	0.590
	April	1,520,954	1,924,299	1,906,008	0.798
	May	2,287,645	1,937,413	1,930,856	1.185
	June	2,774,076	1,945,076	1,941,244	1.429
	July	3,624,156			
	August	3,384,065			
	September	2,799,276			
	October	2,152,908			
	November	1,177,475			
	December	1,018,923			

Table 6. Method of Moving Averages (2003 – 2007) Source: Derived from

<http://www.kultur.gov.tr/TR/BelgeGoster.aspx?F6E10F8892433CFF2B81939FD5B60AFAFFDE13C621852F44>

Months	Ratios (x 100)				Median	Seasonal Index
January	39.24	39.25	40.09	42.79	39.67	39.42
February	36.87	41.55	43.16	43.80	42.35	42.09
March	54.50	55.71	58.96	64.84	57.34	56.98
April	77.46	77.73	79.80	82.44	78.76	78.27
May	116.46	118.48	124.90	131.56	121.69	120.93
June	130.60	136.73	142.90	143.65	139.82	138.95
July	176.67	180.83	181.17	188.06	181.00	179.87
August	163.05	168.74	174.81	191.41	171.77	170.70
September	135.24	142.19	143.46	155.46	142.83	141.94
October	101.42	121.35	121.36	134.16	121.35	120.60
November	59.60	60.59	61.11	61.24	60.85	60.47
December	48.62	49.61	50.55	53.16	50.08	49.77
TOTAL					1,207.51	1,200.00

Table 7. Calculation of the Season Index (2003 – 2007)

According to the calculated seasonal indices, while July has the highest seasonal index (180) for the time period of 2003 and 2007, January has the lowest value (39). From the figures in Table 7, it is possible to examine the seasonal fluctuations among the months in Figure 5.

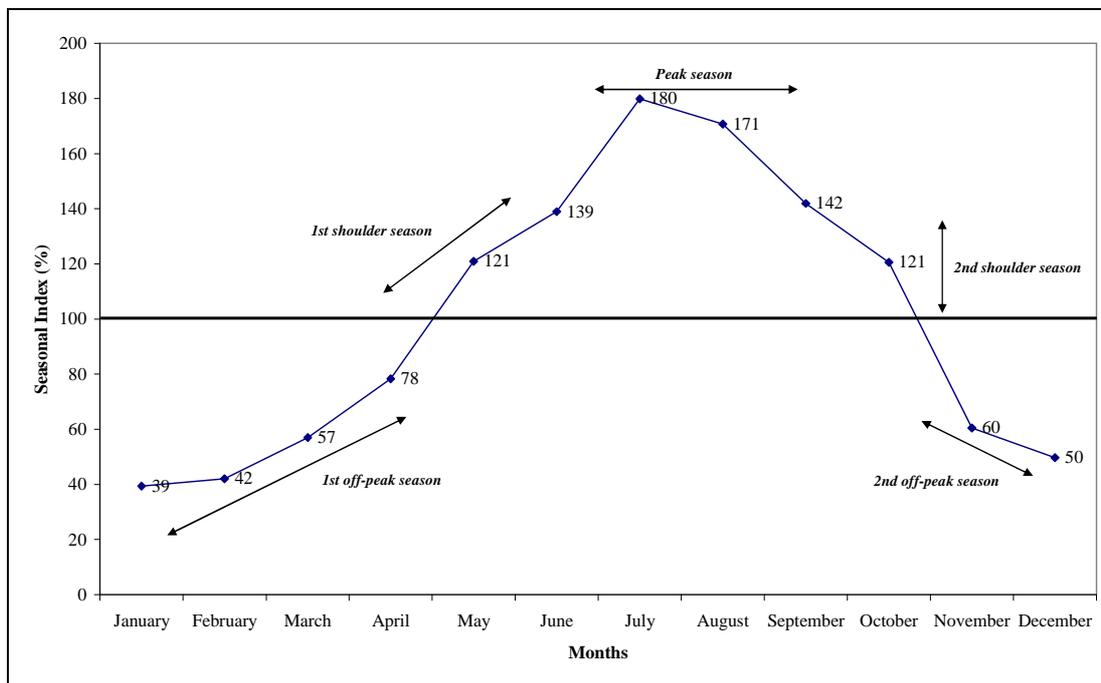


Figure 5. Seasonal Indices of the Turkish Tourist Arrivals between 2003-2007 by the Method of A Ratio to Moving Averages.

As can be noticed from Figure 5, the months of January-February-March-April are the first off-peak seasonal months; May and June are the first shoulder-seasonal months; October is the second-shoulder season; and November and December are the second off-peak seasonal months. Based on this, it can be judged that the Turkish tourism consists of a time period of six months low season, a time period of three months mid-season and a time period of three months peak season between 2003 and 2007. The methods discussed above are summarized with their strengths and weaknesses comparatively in Table 8.

SEASONALITY MEASUREMENT METHODS	STRENGTHS	WEAKNESSES
<i>Seasonality Ratio</i>	<ul style="list-style-type: none"> Measures the seasonal intensity. 	<ul style="list-style-type: none"> Affected by extreme values. Focuses only on one year data.
<i>Seasonality Indicator</i>	<ul style="list-style-type: none"> Indicates the seasonal capacity of the accommodation establishments. 	<ul style="list-style-type: none"> Affected by extreme values. Focuses only on one year data.
<i>The Gini Coefficient</i>	<ul style="list-style-type: none"> Evaluates the whole year and can make comparisons among the years. Is a practical measure in various comparisons. 	<ul style="list-style-type: none"> Makes calculations and comparisons depending upon only a selected year.
<i>Seasonality Index</i>	<ul style="list-style-type: none"> Constructs a base for the demand forecast since it takes into account the previous several years. Its calculation is based on moving averages which takes smooth fluctuations other than seasonality into consideration. 	<ul style="list-style-type: none"> Cannot be applicable to new destinations since it requires previous data. Requires a large amount of data.

Table 8. Comparison of the Seasonality Measurement Methods.

CONCLUSION

This study has examined the seasonality problem in Turkish tourism by applying the widely known seasonality measurement techniques in the literature: (a) Seasonality Ratio; (b) Seasonality Indicator; (c) The Gini Coefficient; and (d) Seasonality Index. As the results indicate, Turkish tourism is highly seasonal with the concentration of tourist arrivals on the summer months. The seasonal concentration of the nationalities of tourist arrivals can also be measured by the Gini coefficient. For instance, in the case of Turkey, to some extent, arrivals of German tourists are not seasonal as much as the tourists arriving from the Commonwealth of Independent States. It is generally recognized that seasonality tends to have more negative effects, particularly from a socio-economic viewpoint. Therefore, necessary attempts should be taken into account in order to eliminate the negative effects of the seasonality. In this respect, to overcome seasonality and hence reduce its negative effects, followings can be done: (a) efforts should be done to lengthen the main season; (b) with various attractions and events additional seasons can be established; (c) target tourist markets should be diversified; (d) price differentiation and tax incentives on a temporal basis can be applied; (e) the staggering of holidays can be encouraged; and (f) domestic tourism in off-seasons can be encouraged.

Our comparative assessment and categorization of the seasonality measurement methods reveal that although none of the seasonality measurement methods are superior to one another, the seasonality indices calculated through the use of moving averages may produce more objective analysis regarding to understand the structure of seasonality in a tourism industry. Every method has its strengths and weaknesses as presented in Table 8. Therefore, it is the suggestion that these methods should be used together in order to have a broader understanding on the structure and the type of the seasonality.

More studies can be conducted in various regions and destinations in a comparative way. The seasonality measurement methods used in this study can use the actual number of stays in the accommodation establishments other than using the number of tourist arrivals. Studies of these kinds may give much more understanding on the seasonality.

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MEASURING THE IMPACT OF BRAND EQUITY ON COMPANY PERFORMANCE: A STUDY ON THE MOBILE PHONE BRANDS IN THE KLANG VALLEY, MALAYSIA

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Purpose of this paper: The aim of this paper is to measure the impact of brand equity on company performance. The study was based on a study on mobile phone in the Klang Valley.

Design/methodology/approach: This is empirical study involving a survey. Of the 500 questionnaires sent out, 317 were returned. The dataset from the sample underwent series of statistical analyses, ie reliability test, factor analysis and multivariate regression.

Findings: Cronbach's alphas were between 0.900 – 0.924 among the 3 constructs, ie Brand Loyalty, Perceived Quality and Brand Image. These results indicated internal consistency among variables measuring the predefined concepts from the literature. Factor analyses also extracted 3 dimensions, ie Brand Loyalty, Perceived Quality and Brand Image. The findings revealed that Brand Loyalty and Brand Image have significant association with company performance.

Research limitations/implications (if applicable): One limitation was the size of the sample due to resources constraints. Although the sample size was small, the model has a good fit. Future research can include; other indicators to performances like ROI or ROE and other brands besides the 4 mentioned the paper.

What is original/value of paper: The paper empirically measured the impact of brand equity on company performance like sales in units. Mobile phone makers may find this paper useful as brand equity can be empirically substantiated using a series of statistical techniques.

Keywords: Brand Equity, Regression, Mobile Phone Companies, Malaysia.

Paper Type: Empirical Study.

INTRODUCTION

The telecommunications sector in Malaysia has undergone significant physical and structural transformation in the past twenty years (Lee, 2002). From the 2006 report by the Malaysian Communication and Multimedia Commission (MCMC), it is shown that between 1985 and 2005, fixed line subscribers grew more than 460% and the mobile phone subscribers grew a whopping 422,138% (see Table 1). The figures are simply staggering. In fact, the mobile phone subscribers exceeded the fixed line subscribers somewhere between 1995 and 2000. This happened during the privatisation and liberalisation of the sector in the 1980s in an era of dynamic regulatory reforms and competition.

The following years, the fixed line penetration ratio remained relatively low and even suggested a slight fall from 2000 to 2005 with merely 16.6 per 100 population in 2005 (see Table 1). In contrast, the mobile phone subscriptions have soared tremendously and there are more than 19 million subscribers- most of its grown from the year 2000-2005. This growth can be attributed to the significant growth in the prepaid services launched by the service providers (in the late 1990s) which appealed to younger people mainly those 15-24 years old (Chong, 2007). Also handset prices have dropped tremendously due to growing market sizes, which permit economies of scale, technological enhancements and, in some cases, cross-subsidisations of handset prices (ITU, 1999).

Sector	1970	1980	1985	1990	1995	2000	2005
Population size ('000)	8,118	13,879	15,883	18,102	20,689	23,254	26,380
Fixed Line Subscribers	107,000	395,640	948,598	1,585,744	3,332,447	4,628,000	4,366,000
Mobile Phones Subscribers	-	-	4,630	84,557	872,790	5,122,000	19,545,000
Fixed Line Penetration*	1.3	2.9	6.0	8.8	16.1	19.9	16.6
Mobile Phone Penetration*	-	-	0.0	0.5	4.2	22.0	74.1

* per 100 population

Table 1:

Malaysia Telecommunications Indicators 1970-2005

Source: Adapted from Lee (2002), *Telecommunication Reforms In Malaysia*, p 523 and SKMM (2006), *Komunikasi & Multimedia: Fakta & Angka Terpilih* pp 16,26,28

The mobile phone penetration rate changes from year 1998 to 2006 can be seen in Figure 1. Out of the 19 million subscribers of mobile services, 15% is post paid and the rest is from the prepaid sector.

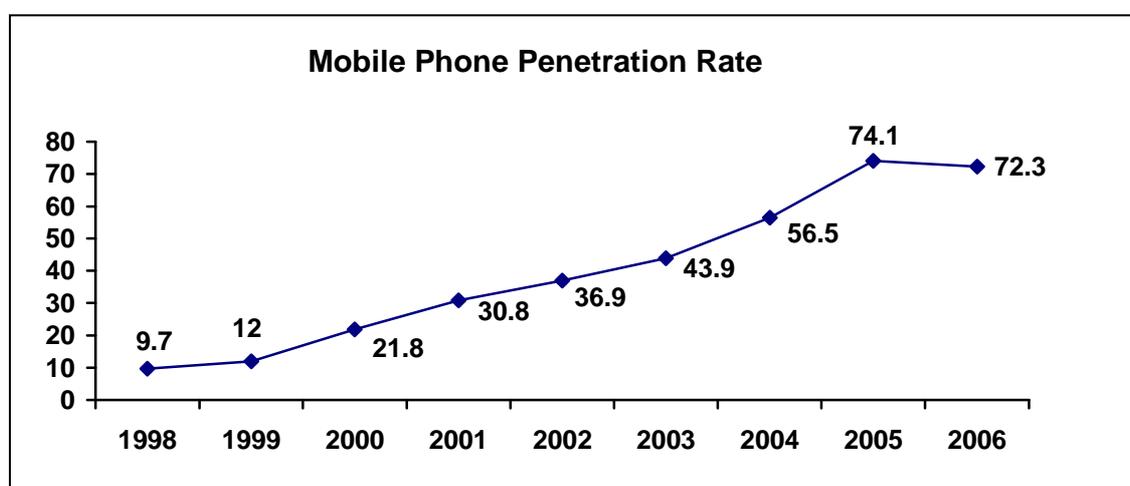


Figure 1: Mobile Phones Penetration Rate

Source: MCMC (2006), *Komunikasi & Multimedia: Fakta & Angka Terpilih*, p 28.

There are 3 players in the mobile telecommunication service provider market, ie Maxis Communications Bhd (using the 012 and 017 prefix), Celcom (M) Bhd (using the 019 and 013 prefix) and DiGi Telecommunications Sdn Bhd (using the 016 and 014 prefix). Their respective market shares from year 2004 to 2006 are shown in Table 2.

Service Providers	2004 (%)	2005 (%)	2006 (%)
Maxis Communications Bhd	41.2	40.3	40.1
Celcom (M) Bhd	36.6	35.2	33.4
DiGi Telecommunications Sdn Bhd	22.2	24.6	26.4

Table 2: Service Provider Market Share

Source : Chong, (2007), *Maxis Internal Report, Internal Competitive Analysis Training*, 4-5 April 2007

In Malaysia, the market for mobile phones is dominated by 4 major brands (Nokia, Motorola, Samsung and Sony Ericsson). Together, in 2006, these four companies hold 96% of the market share. Of these manufacturers, Nokia is by far the most popular with 49% of the market (in terms of units); Samsung falls in 2nd place with 18%, Motorola at 3rd place with 16% and finally Sony Ericsson with 13%. (see Figure 2). The

other 4% are mostly saturated by brands like LG, Panasonic, Siemens, Sagem, Alcatel, Phillips, Toshiba and other PDA phones such as Palm, Dopod, O2, Mitac, iKoMo and Xplore.

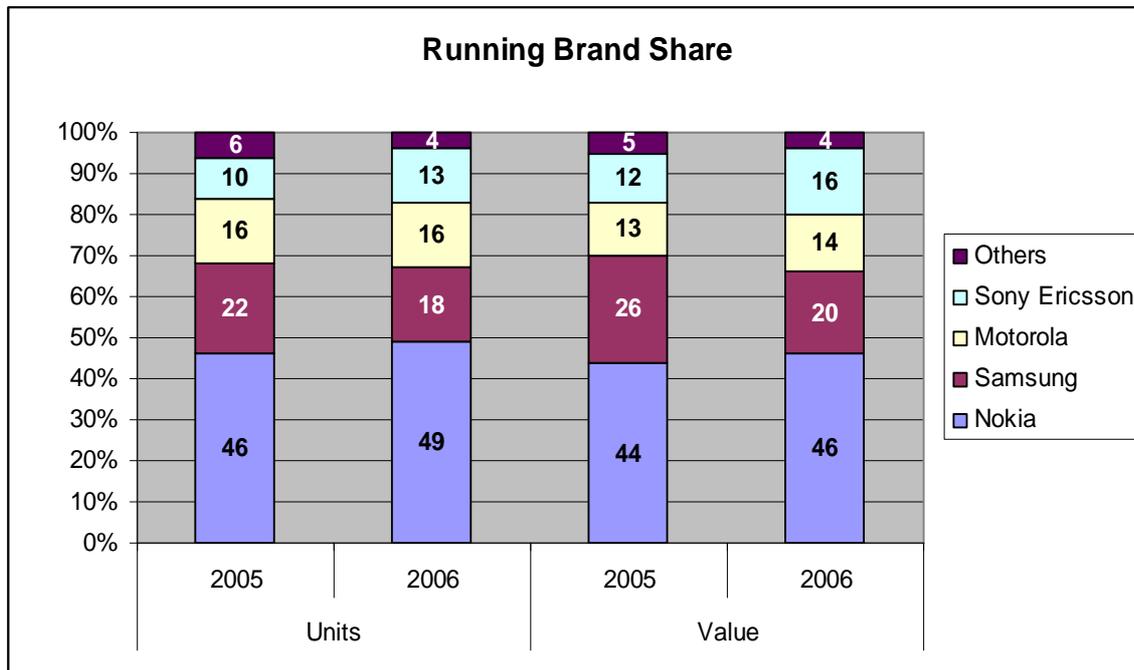


Figure 2: Running Brand Share of Mobile Phones

Source: GFK (2006), Mobile Phone- Retail Audit Results-Total Malaysia-Dec 06

In more recent times, the government of Malaysia has put forth the National Telecommunication Policy (1994-2020) as a catalyst towards the growth and development of this sector. Its objective is to make Malaysian telecommunication a modern, sophisticated and dynamic sector. The strategies that are to be carried out include expansion of services in a systematic and comprehensive manner, encouraging competitiveness, research and development, upgrading of rural facilities and etc. All this will definitely further increase the mobile phone penetration and provide ample opportunities for both mobile phone manufacturers and service providers to grow. Despite the continuing dominance of the major manufacturers in the handset market, there has been evidence of establishment of newer players, partly as a result of the widening of the network market by newer providers. In Malaysia, there are no new service providers but the establishment of newer players is true nonetheless as seen in the proliferation of unknown phone brands like Mitac, Gigabyte, VK Mobile, HUM, i-mobile and Xplore. These smaller players are racing to introduce the technologically latest game phones and handsets with the most sophisticated interactive capabilities, as well as scalability in sheer range of models.

Due to the intense competition, mobile phone brands tend to compete on three important platforms; technology, design and branding (Chong, 2007). Due to the depth of these three areas, branding is the focal point of this paper. In describing good branding strategies, one often relates the positive results of the strategies as brand equity. Brand equity plays a prominent role in evaluating the brand health because it increases the firms':

- Competitive Advantage
- Sales Revenue / Margin
- Shareholders' Value
- Growth Opportunities

The following reflects the impact of brand equity on the firms' performance and development. Therefore brand equity is an important asset of a firm. With such rapid changes within the mobile phone industry, it is the aim of this paper to examine the impact of brand equity, which consists of brand loyalty, brand image and perceived quality, on company performance of mobile phone companies in the Klang Valley, Malaysia. For the purpose of this research, only the top 4 mobile phone brands are chosen, ie Nokia, Motorola, Samsung and Sony Ericsson.

LITERATURE REVIEW

There are various definitions of 'brand' that one can get from the scholarly journals, web and dictionaries. It has been long recognized that brands are valuable to companies. Brands often provide the primary points of differentiation between competitive offerings and therefore are critical to the success of a company. Brands are considered intangible corporate assets (de Mortanges and van Riel, 2003). It is often suggested that they possess economic value and create wealth for the company's shareholders (Aaker, 1996; Doyle, 2001; Kerin and Sethuraman, 1998). Due to the many definitions, the perception of brand is diversified and assorted (see Table 3). However, brand seemed an esoteric concept as the measurement of this intangible asset is complicated and problematic. In the midst of this complication, brand equity provides the avenue to quantify the value of the brand.

Authors	Definitions
Sherry (2005)	Tripartite meaning- 1) Burning, 2) Marking, 3) Delivery from danger. Also embodies the transformative heat of passion. A differentiator, a promise, a license to charge a premium,...a mental shortcut that discourages rational thought,a performance, a gathering, and inspiration,.. a semiotic enterprise of the firm, the companion spirit of the firm, . a contract, a relationship, a guarantee,... a non-zero-sum game; improvisational theatre at best, guerrilla theatre at worst
American Marketing Association	a name, term, sign, symbol, or design, or a combination of them, intended to identify the goods or services of one seller or groups of sellers and to differentiate them from those of competitors
Berthon et al. (2007)	Symbols around which companies, suppliers, supplementary organizations, the public and, indeed, customers construct identities
Watkins (1986), Aaker (1991), Stanton et al. (1991), Doyle (2001) & Kotler et al. (1996)	Variations but similar in context to the above definition by Berthon et al. (2007)
Dibb et al. (1997)	A name, term, design, symbol or any other feature that identifies one seller's good or service as distinct from those of other sellers
Murphy (1992)	A complex thing. Not only is it the actual product, but it is also the unique property of a specific owner and has been developed over time so as to embrace a set of values and attributes, both tangible and intangible, which meaningfully and appropriately differentiate products which are otherwise very similar
Prasad & Dev (2000)	Embraces all tangible and intangible attributes that the business stands for
Ambler (1997), Arnold (1992)	The promise of the bundles of attributes that someone buys and provide satisfaction... the attributes that make up a brand may be real or illusory, rational or emotional, tangible or invisible
Martineau (1959)	An image in the consumers' minds
Alt & Griggs (1988) & Goodyear (1993)	Brand Personality
Sheth et al. (1991)	Value Systems
Levitt (1962), de Chernatony & McDonald (1992), Murphy (1992) & Wolfe (1993)	Added Value
Brown (1992) and Noble (2006)	... nothing more or less than the sum of all the mental connections people have around it.
De Chernatony (2001)	Complex offerings that are conceived in brand plans but ultimately reside in consumer's mind

Table 3: Summarises of the authors and their respective definitions of 'brand'

Overview of Brand Equity

"Brand equity" is considered as an attempt to define the relationship between customers and brands in the marketing literature (Wood, 2000). The issue of brand equity has emerged as one of the most crucial topics for marketing management in 1990s (Leuthesser et al., 1995; Keller, 1993; Cobb-Walgren et al., 1995; Lassar et al., 1995; Aaker, 1996; Dyson et al., 1996, Kim & Kim, 2005). The content and meaning of brand equity have been debated in a number of different ways and for a number of purposes, but so far no congruent and common viewpoints have emerged (Vazquez et al., 2002; Keller, 2003a; Keller, 2003b; Washburn & Plank, 2002; Atilgan et al., 2005).

At the simplest level, brand equity assesses the value of a brand. At a conceptual level, most of the authors agree to some extent on its meaning but brand equity can still be considered in many different contexts; the added value endowed by the brand to the product (Farquhar, 1989); brand loyalty, brand awareness,

perceived quality, brand associations, and other proprietary brand assets (Aaker, 1991); brand value (Kamakura & Russell 1993); differential effects of brand knowledge on consumer response to the marketing of the brand (Keller, 1993); the set of associations and behaviour that permits the brand to earn greater, Volume or greater margins (Leuthesser et al., 1995); incremental utility (Simon & Sullivan, 1993); total utility (Swait et al., 1993), the difference between overall brand preference and multi-attributed preference based on objectively measure attribute levels (Park & Srinivasan 1994); subsumes brand strength and brand value...which permits sustainable and differentiated competitive advantages, superior current and future profits, and lowered risks (Srivastava & Shocker, 1991); brand value, brand strength and brand description (Feldwick, 1996). These many definitions imply that brand equity is the incremental value of a product due to the brand name (Srivastava & Shocker, 1991).

Brand equity can be discussed from the perspective of the investor, manufacturer, retailer, the consumer (Cobb-Walgren et al. 1995; Atilgan et al., 2005). Manufacturers and retailers are more interested in the strategic implications of the brand while investors are more sympathetic for a financially defined concept (Cobb-Walgren & Ruble, 1995). In simple terms, manufacturers and retailers are more interested in the relationship between customers and the brand. This relationship can be called customer brand equity. Investors however, are more likely to be interested in what brand equity means in terms of the asset valuation (Wood, 2000)

Intangible brand properties came to be known as brand equity in marketing literature (Kerin & Sethuraman, 1998). Brand equity arose from customer brand-name awareness, brand loyalty, perceived brand quality, and favourable brand symbolism and associations that provide a platform for a competitive advantage and future earnings streams (Aaker, 1991). If a company's brand name represent both an asset as well as its future earnings, then is quite important to be able to put a valuation on the brand itself to see what economic value it brings to the company. Claiming that successful brands are an asset to the company is one thing, assigning the value to the brand is quite another. There has been much work for the last 15 years that seek to find a way of measuring brand equity. Most of the work on brand equity centres on three perspectives: customer-based, financial-based and the combined/balanced view (Kim & Kim, 2005) – see table 4. The combined/balanced view is preferred due to its overall emphasis on customer and financial based perspective.

Researchers	Concept	Measurement
Customer-based perspectives		
Aaker (1991, 1996)	<ul style="list-style-type: none"> Brand awareness Brand loyalty Perceived quality Brand associations 	<ul style="list-style-type: none"> Perceptual and behavioral conceptualization
Srivastava and Shocker (1991)	<ul style="list-style-type: none"> Brand strength 	<ul style="list-style-type: none"> Brand strength (customers' perception and behavior) + fit = brand value (financial outcome)
Keller (1993, 2003b)	<ul style="list-style-type: none"> Brand knowledge 	<ul style="list-style-type: none"> Brand knowledge = brand awareness + brand image
Blackston (1995)	<ul style="list-style-type: none"> Brand meaning 	<ul style="list-style-type: none"> Brand relationships model = objective brand (personality characteristics, brand image) + subjective brand (brand attitude)
Kamakura and Russell (1993)	<ul style="list-style-type: none"> Brand value 	<ul style="list-style-type: none"> Brand value = tangible value + intangible Value
Swait et al. (1993) Park and Srinivasan (1994)	<ul style="list-style-type: none"> Total utility 	<ul style="list-style-type: none"> Equalization price measuring
Park and Srinivasan (1994)	<ul style="list-style-type: none"> Difference between overall preference and preference on the basis of objectively measured attribute levels 	<ul style="list-style-type: none"> Brand equity = attribute based + non-attribute based
Francois and MacLachlan (1995)	<ul style="list-style-type: none"> Brand strength 	<ul style="list-style-type: none"> Intrinsic brand strength Extrinsic brand strength
Lassar et al. (1995)	<ul style="list-style-type: none"> Performance Social image Commitment Value Trustworthiness 	<ul style="list-style-type: none"> Evaluate only perceptual dimensions Discover a halo across dimensions of brand equity
Agarwal and Rao (1996)	<ul style="list-style-type: none"> Overall quality Choice intention 	<ul style="list-style-type: none"> Brand perception/brand preference/brand choice paradigm
Yoo et al. (2000)	<ul style="list-style-type: none"> Brand loyalty Perceived quality Brand awareness/associations 	<ul style="list-style-type: none"> Validating Aaker's conceptualization
Cobb-Walgren et al. (1995)	<ul style="list-style-type: none"> Brand awareness Perceived quality Brand associations 	<ul style="list-style-type: none"> Relationship with brand preference and usage intentions (Aaker, 1991)
Prasad and Dev (2000)	<ul style="list-style-type: none"> Brand performance Brand awareness 	<ul style="list-style-type: none"> Hotel brand equity index = satisfaction + return intent + value perception + brand preference + brand awareness
Financial perspectives		
Simon and Sullivan (1993)	<ul style="list-style-type: none"> Incremental cash flows which accrue to branded products 	<ul style="list-style-type: none"> Brand equity=intangible assets_(nonbrand factors + anticompetitive industry structure)
Comprehensive perspectives		
Farquhar (1989)	<ul style="list-style-type: none"> Added value with which a given brand endows a product 	a. Respective evaluation on firm's, trade's, and consumer's perspective
Dyson et al. (1996)	<ul style="list-style-type: none"> Brand loyalty Brand attitude 	b. Consumer value model: proportion of expenditure weight of consumption
Motameni and Shahrokhi (1998)	<ul style="list-style-type: none"> Global Brand Equity (GBE) 	c. Brand strength (customer, competitive, global potency) x brand net earnings

Table 4: The relationship between brand equity and firm's performance in luxury hotels and chain restaurants

Source: Adapted from Kim & Kim (2005)

A balanced view of Quantifying Brand Equity

A key requirement for managing brand equity is the availability of good measures (Aaker & Joachimsthaler 2000). Wood (2000) holds that accountants tend to see brand equity differently from marketers, with the concept being defined both in terms of the relationship between customer and brand (consumer-oriented definitions) or as something that accrued to the brand owner (company oriented definitions). As such different perspectives on brand equity were contrived.

CUSTOMER-BASED PERSPECTIVE

The customer based brand equity perspective is approached by taking the view of the customer- be it an individual in the business-to-consumer (B2C) market or an organization in the business-to-business (B2B) market. Keller (2003b) coins the term *customer-based brand equity* (CBBE) and defines it as "the differential effect of brand knowledge on customer response to the marketing of the brand". The premise of the CBBE approach is that the power of the brand lies in what customers have learned, felt, seen, and heard about it over time. Simply put, the power of a brand is what resides in the minds of customers, ie consumer franchise (Keller, 2003a; Kotler, 1996).

Srivastava & Shocker (1991) state that brand equity subsumes two multi-dimensional concepts, ie brand strength and brand value. Here, it is explained that brand strength is based on perception and behaviours of customer that allow the brand to enjoy sustainable and differentiated competitive advantages. Brand value is the financial outcome of the management's ability to leverage brand strength via strategic actions to provide superior current and future profits (Srivastava & Shocker, 1991).

David Aaker (1991, p 16), defined brand equity as 'a set of brand assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by product or service to a firm and/or to that firm's consumers'. Blackston (1995) on the other hand, has referred to brand equity as brand value and meaning, where brand meaning implies brand saliency, brand associations, brand personality and where brand value is the outcome of managing the brand meaning. Winters (1991) related brand equity to added value by suggesting that brand equity involves the value added to a product by consumers' association and perceptions of a particular brand name.

For the brand to have value (measured by brand equity), it must first of all be valued by the consumers. If the brand has no meaning to the consumer, none of the other definitions is meaningful (Farquhar, 1989; Crimmins, 1992; Keller, 1993; Cobb-Walgren & Ruble, 1995; Rio et al., 2001). Within the marketing literature, operationalisations of customer-based brand equity usually fall into two groups (Cobb-Walgren et al., 1995; Yoo et al., 2000) which are

1. Consumer perception (brand awareness, brand associations, perceived quality)
2. Consumer Behaviour (brand loyalty, willingness to pay a high price).

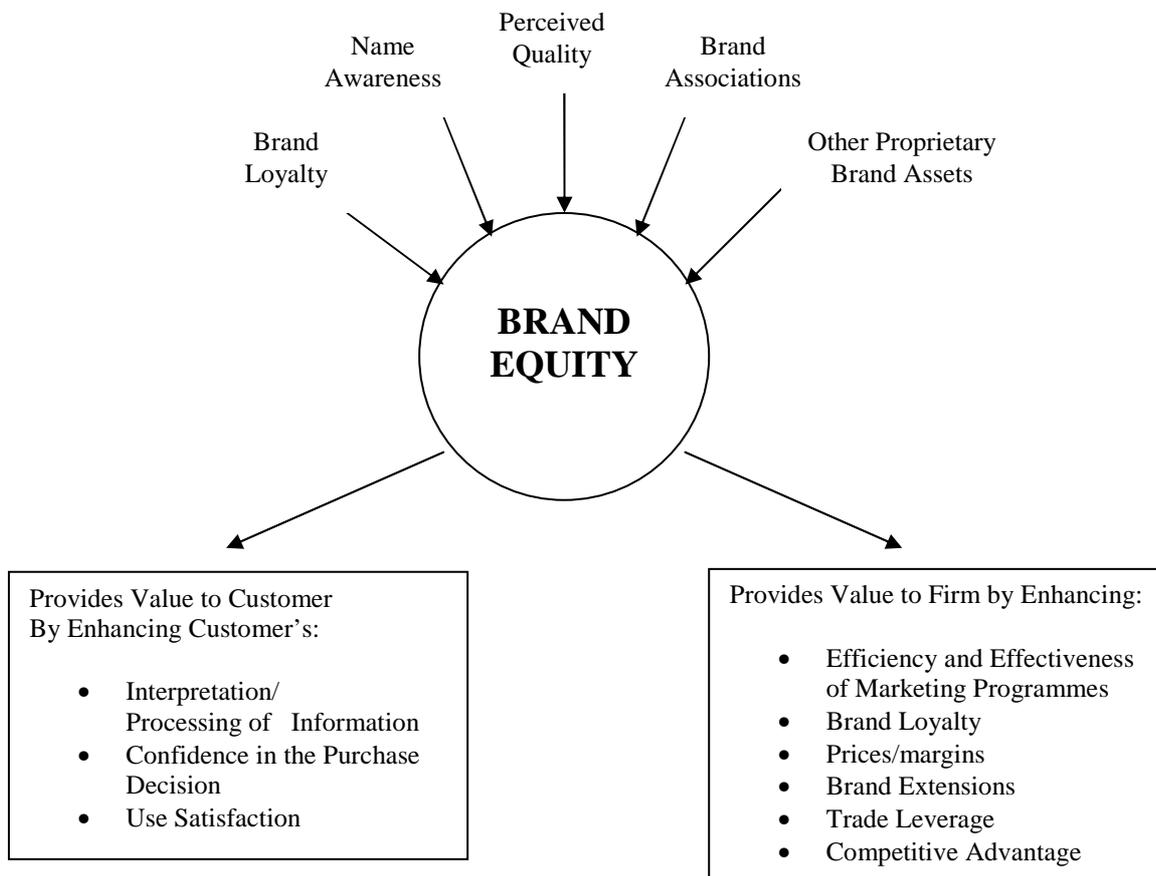
Brand equity has been operationalised by Lassar et al. (1995) as an enhancement in the perceived utility and desirability a brand name conferred on a product. It is the consumers' perception of the overall superiority of a product carrying that brand name when compared to other brands. Lassar et al. (1995) offer that the customer-based brand equity indicates only the perceptual dimensions rather than behavioural dimensions (such as loyalty or usage intentions) which differ from Aaker's earlier work in 1991(which incorporated the behavioural dimensions). The dimensions of brand equity – brand loyalty, brand awareness, perceived quality and brand image which was offered by Aaker (1991, 1996) have been broadly accepted and employed by many researchers and authors (Keller, 1993; Motameni & Shahrokh, 1998; Low & Lamb Jr., 2000; Prasad & Dev, 2000; Yoo et al., 2000; Washburn & Plank, 2002, Kim & Kim, 2004, 2005, Altılgan et al., 2005).

Quantifying Brand Equity using Aaker's Brand Equity Model

Aaker (1991) examined brand equity and explained that a brand's assets and liabilities contribute to its equity. In order for assets or liabilities to underlie brand equity they must be linked to the name and/or symbol of the brand. The assets and liabilities on which brand equity is based on will differ from context to context. However, they can be usefully grouped into 5 categories:

1. Brand Loyalty
2. Name Awareness
3. Perceived Quality
4. Brand Associations in addition to perceived quality
5. Other proprietary brand assets- patents, trademarks, channel relationships, etc

The concept of brand equity by Aaker (1991) is summarized in Figure 3. The 5 categories of assets that underpin brand equity are shown as being the basis of brand equity. The figure also shows that brand equity



creates value for both the customer and the firm.

Figure 3: Aaker's Brand Equity Model

Source : Aaker (1991), "Managing Brand Equity: Capitalizing on the value of a brand name", p17

This measure is not only valid and reliable but also parsimonious (Aaker, 1991; Yoo et al., 2000), which helps practitioners track brand equity of individual brands on a regular basis. Regular checking is advised as consumers are fickle and any changes (negative) in brand equity needs to be identified so that the right measures can be taken to counteract the reasons of such changes. While this method is useful in making relative comparisons of brands, it is not easy to translate preference measures into financial measures for use in cost benefit analyses (Randall *et al.*, 1998). This makes the method, whilst very popular with marketers, unfavorable to accountants who need to sink their teeth into something more 'substantiated' and "tangible".

Linking Brand Equity and Company Performance

According to Rubinson & Pfeiffer (2005), if a brand is creating brand equity, it is succeeding in creating loyalty based on uniquely favourable customer beliefs. They affirm that such brands enjoy greater market share, margins and resulting profits than a generic product or poorly marketed brand. They continued to explain that loyalty provides the mechanism by which increased profit margins arise. As a group, loyal customers do not require marketing stimuli to the same degree as less loyal customers to stay with the brand, nor are they as switchable in the face of competitive promotions. An observation by the authors suggested that the average price paid for a given brand, among a range of packaged goods, by consumer scanner panel data seemed to be higher among more loyal buyers (as measured by share of requirements). This is presumably due to loyal users who are much more likely to buy the brand whether it is on sale or not. This implies that brand equity can positively affect company performance.

Even though the brand is an asset, its intangibility is one key reason why it is not included as an asset in accounting. Therefore there is this plethora of ways in valuing a brand from the 3 perspectives, previously mentioned, to other methods which are not discussed here for parsimony sake. In the end, any measurement of brand equity can never be a conclusive attempt. There are many elements within the brand itself that would prove to be elusive for a person who is empirically quantifying it. Therefore researchers need to acknowledge this setback that can influence brand valuation.

RESEARCH FRAMEWORK

The framework of this paper is based on Aaker (1991) which was discussed previously. Aaker (1991) expounded that brand equity is a multidimensional concept that consists of brand loyalty, brand awareness, perceived quality, brand associations and other proprietary assets. The study was exploratory in nature. Later, Yoo et al. (2000) adopted four of Aaker's five categories, namely brand loyalty, brand awareness, perceived quality and brand associations. Aaker (1991) described the five dimensions as representing customer perceptions and reactions to the brand. These dimensions are readily understood by consumers. Aaker (1991) further expounded that the 5th brand asset consists of other proprietary brand assets such as patents, trademarks, and channel relationships. However, this dimension is not relevant to the consumers, hence removed in the model. In the context of this paper, the brand awareness construct was excluded in the analysis because data was not collected from survey. However a study shows that the 4 brands constituted 96% market share in Malaysia (Chong, 2007). As such, the variance among the 4 brands in the context of brand awareness is marginal. Thus, only three constructs are used in the CBBE (see Figure 4). Hence an adapted model of Aaker (1991) was adopted.

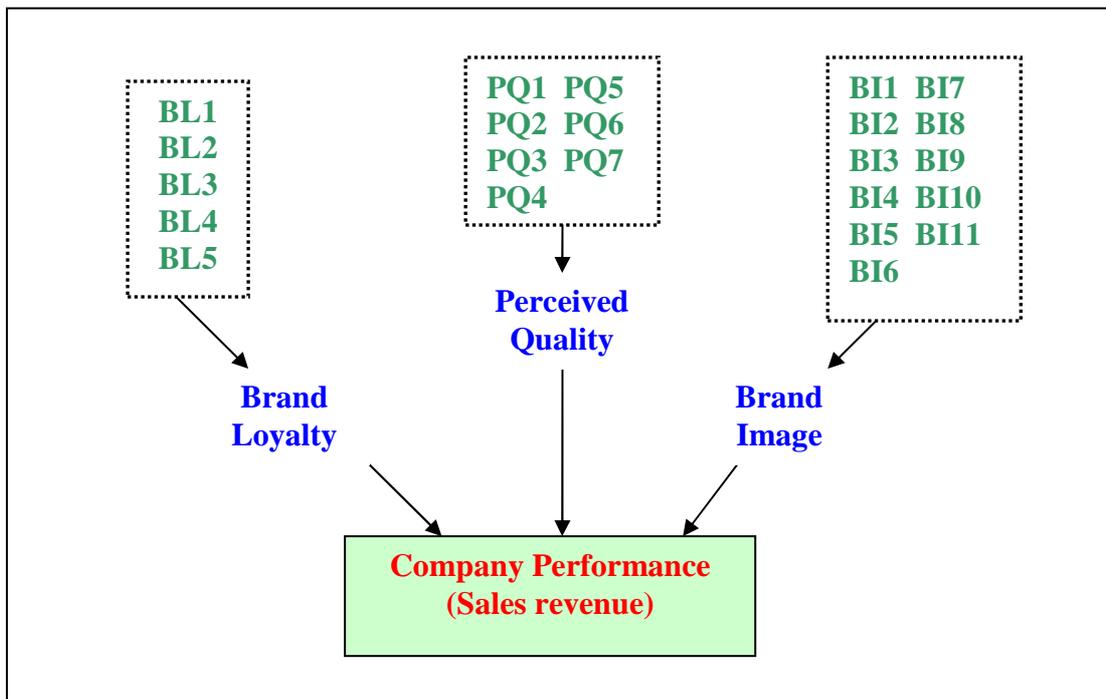


Figure 4: The Framework for this research (adapted from Aaker, 1991)

Source: Adapted from Aaker (1991), *Managing Brand Equity*, p17

Figure 4 suggested that brand loyalty, perceived quality and brand image have associations with the company performance. Therefore in this study, brand equity consists of 3 dimensions; ie Brand Loyalty, Perceived Quality and Brand Image, are manifested by 5, 7 and 10 variables (see Table 5).

<i>Dimension</i>	<i>Measures</i>	<i>Abbreviation</i>	<i>Author</i>
Brand Loyalty	<i>Behaviour Measures</i>	BL1	Aaker (1991)
	<i>Switching Costs</i>	BL2	
	<i>Satisfaction Measures</i>	BL3	
	<i>Liking the brand</i>	BL4	
	<i>Commitment to the brand</i>	BL5	
Perceived Quality	<i>Performance</i>	PQ1	Garvin (1984)
	<i>Features</i>	PQ2	
	<i>Conformance</i>	PQ3	
	<i>Reliability</i>	PQ4	
	<i>Durability</i>	PQ5	
	<i>Serviceability</i>	PQ6	
	<i>Fit and Finish</i>	PQ7	
Brand Image	<i>Product attributes</i>	BI1	Aaker (1991)
	<i>Intangibles</i>	BI2	
	<i>Customer benefits</i>	BI3	
	<i>Relative price</i>	BI4	
	<i>Use/application</i>	BI5	
	<i>User/customer</i>	BI6	
	<i>Celebrity/person</i>	BI7	
	<i>Life-style/personality</i>	BI8	
	<i>Product class</i>	BI9	
	<i>Competitors</i>	BI10	

Table 5: Brand Equity Dimensions and its manifesting variables

Company Performance

Although profit related financial ratios may be more appropriate to represent company performance, sales in units is chosen as the indicator for company performance. This indicator is the dependent variable. The sales in units were chosen instead of sales revenue because the price of a particular phone model will decline throughout its lifecycle. Hence it is not a very accurate representation of company performance relative to brand equity. Sales in units will give a better regression on the constructs in Figure 4. From the survey, respondents were asked the approximate number of phones (of specific brands) they have bought in the past 5 years. This indicates the performance of the brand in terms of performance.

METHODOLOGY AND FINDINGS

A series of statistical tests were conducted to examine the impact of brand equity on company performance. These statistical tests were as follow:

1. Reliability Analysis,
2. Factor Analysis, and
3. Logistic Regression

Survey Results

Of the 500 questionnaires sent out in Klang Valley, a total of 317 were completed and returned. The number of questionnaires sent (500) was based on the funding and resources available to the researchers. Nevertheless, a minimum of 200 sample size is considered adequate to conduct a series of statistical tests (Hair et al., 1998). However 9 questionnaires response were rejected due to incompleteness with most of them having only 4 replies out of the 35 questions (23 were measuring independent variables via a 7 interval scaled questions while 12 were non parametric scales on background and other information). Of the

remaining 308 responses, 141 were males (46%) and 167 were females (54%). In terms of age, majority of them were in the 21-30 years old age group (47%) and 31-40 year old age group (41%). In terms of the education level, more than half the respondents held a bachelors degree (58.6%), closely followed by a Master's degree (18%) and Diploma (15%). Looking at the gross annual income, more than half of the respondents fell into the wide scale of annual income between RM30,000 and less than RM99,000. Around 6% would spend above RM2000 for a mobile phone, 37% RM1001-RM2000, another 37% RM501-RM1000, 12.5% between RM301 –RM500 and about 7% less than RM300. On average, the amount spent on mobile phones was approximately RM1300 per unit. The average number of the same mobile phone brand purchased by the respondents in the last five years was 2.6 phones.

Reliability Analysis

Reliability analysis was performed using SPSS to calculate Cronbach's alpha. This analysis was to test the degree of consistency of variables when measuring the brand equity dimensions for the four mobile phone brands. The factors examined were brand loyalty, perceived quality and brand image. From the results in Table 6, Cronbach's alpha for brand loyalty, perceived quality and brand image were 0.910, 0.900 and 0.923 respectively. This showed how well each individual items in a scale correlates with the sum of the remaining items. The results implied that the questionnaire was measuring brand loyalty, perceived quality and brand image in a consistent way.

<i>Scale Item</i>	<i>Mean of each indicator (on a scale 1=strongly disagree to 7=strongly agree)</i>
Brand Loyalty: Cronbach's Alpha = 0.910	
1) <i>I have been buying this brand regularly</i>	5.15
2) <i>I will buy this brand again</i>	5.40
3) <i>I am satisfied with this brand</i>	5.61
4) <i>I will recommend this phone brand to my friends</i>	5.37
5) <i>I will not switch to another phone brand if current phone is damaged</i>	4.19
Perceived Quality: Cronbach's Alpha = 0.900	
1) <i>The phone's function works well ie voice/music quality is good, camera photos are clear, etc</i>	5.44
2) <i>The phone is user friendly and has convenient features</i>	5.78
3) <i>The phone hardly has any defects</i>	5.07
4) <i>The phone is reliable, it works properly each time it is used</i>	5.46
5) <i>The phone is not easily damaged</i>	5.35
6) <i>There is good after care customer service</i>	4.76
7) <i>The phone looks and feels like it is of good quality</i>	5.71
Brand Image: Cronbach's Alpha = 0.923	
1) <i>This phone fits my personality</i>	5.43
2) <i>It has a good reputation</i>	5.88
3) <i>This brand stresses on innovation</i>	5.60
4) <i>This phone is good value for money</i>	5.36
5) <i>Owned by a lot of people who are hip and happening</i>	4.93
6) <i>I feel proud owning the phone</i>	5.11
7) <i>It's like a companion</i>	5.03
8) <i>It's a fashion accessory</i>	4.46
9) <i>It's like my personal organizer</i>	4.46
10) <i>The brand is familiar to me</i>	5.87
11) <i>It has a differentiated image from other phone brands</i>	5.26

Table 6: Scale Items for Mobile Phone Brands Survey

Exploratory Factor Analysis

Exploratory factor analysis using SPSS was employed to summarise the essential information contained in the variables and to summarise a set of variables (Coakes, 2005, p 154). Results revealed that the Bartlett test of sphericity is significant (p value = 0.000) and that the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.947 which is greater than the 0.6 threshold. This indicated correlation among indicators within the factors structure. In short, the factors extracted are consistent and clearly manifested by the variables.

The factors were then rotated with varimax rotation to achieve simpler and theoretically more meaningful factor solutions (Hair et al., 1998, p 106). The factor loadings that were below 0.30 are considered not significant for a sample size of 350 and therefore were suppressed (Hair et al., 1998, p 112). Factor loadings, which explained the correlation, now the factor loadings, of each variable and the factor, showed that these variables have influence over the factor. The results in Table 7 show that 3 factors were extracted, ie, 'brand image' (Component 1), 'brand loyalty (Component 2) and 'perceived quality' (Component 3).

	Components		
	1	2	3
<i>Been buying this brand</i>		<i>.784</i>	
<i>Will buy again</i>		<i>.820</i>	
<i>Satisfied</i>		<i>.743</i>	<i>.497</i>
<i>Recommend</i>	<i>.322</i>	<i>.739</i>	<i>.411</i>
<i>Will not switch</i>	<i>.395</i>	<i>.581</i>	
<i>Performance</i>	<i>.433</i>	<i>.448</i>	<i>.471</i>
<i>Features</i>		<i>.669</i>	<i>.452</i>
<i>Conformance</i>			<i>.862</i>
<i>Reliability</i>		<i>.308</i>	<i>.794</i>
<i>Durability</i>			<i>.824</i>
<i>Serviceability</i>	<i>.360</i>		<i>.503</i>
<i>Fit and Finish</i>	<i>.418</i>	<i>.362</i>	<i>.535</i>
<i>Fits personality</i>	<i>.701</i>	<i>.395</i>	
<i>Good reputation</i>	<i>.437</i>	<i>.571</i>	<i>.433</i>
<i>Innovation</i>	<i>.570</i>	<i>.440</i>	<i>.338</i>
<i>Value for money</i>	<i>.527</i>	<i>.319</i>	<i>.477</i>
<i>Owned by hip people</i>	<i>.789</i>		
<i>Proud owning phone</i>	<i>.828</i>		
<i>Companion</i>	<i>.739</i>	<i>.326</i>	
<i>Fashion accessory</i>	<i>.797</i>		
<i>Organiser</i>	<i>.651</i>		
<i>Familiar brand</i>		<i>.645</i>	<i>.355</i>
<i>Differentiated image</i>	<i>.515</i>	<i>.374</i>	<i>.337</i>

Table 7: Rotated Component Matrix

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Regression Analysis

Regression analysis using SPSS was employed to represent the best prediction of a dependent variable from several independent variables. The dependent variable that was chosen to represent company performance was “company sales in units”. Results showed that the 3 factors (brand loyalty, perceived quality and brand image) explained approximately 47.7% of the total variance of sales in units (see Table 8).

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.690 ^a	.477	.467	5.172

a. Predictors: (Constant), Brand Awareness Regr Factor Score, Perceived Quality Regr Factor Score, Brand Loyalty Regr Factor Score, Brand Image Regr Factor Score

b. Dependent Variable: Company Sales

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5457.302	3	1364.326	51.006	.000 ^a
	Residual	5991.650	224	26.748		
	Total	11448.952	228			

a. Predictors: (Constant), Brand Awareness Regr Factor Score, Perceived Quality Regr Factor Score, Brand Loyalty Regr Factor Score, Brand Image Regr Factor Score

b. Dependent Variable: Company Sales

Table 8: Results of Regression and ANOVA

An examination of the t-values in Table 9 indicated that brand loyalty and brand image were linearly related to the company sales, but there is no evidence of a linear relationship between perceived quality and company sales. Of the two significant factors, brand loyalty had a higher standardised regression coefficient ($\beta=0.311$) compared to brand image ($\beta=0.136$). Perceived quality had a low significance level of 0.123 ($\beta=0.075$) which meant that perceived quality was not statistically significant. In short, there was insufficient evidence to imply that there was linearity between perceived quality and company sales in units.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.852	.342		37.603	.000
	Brand Image Regr Factor Score	.962	.343	.136	-2.808	.005
	Brand Loyalty Regr Factor Score	2.207	.343	.311	6.444	.000
	Perceived Quality Regr Factor Score	.531	.343	.075	1.549	.123

a. Dependent Variable: Company Sales

Table 9: Regression Coefficients Results

DISCUSSION

Brand Equity Rating (BER)

Referring to Table 10, the ratings show that Nokia ranked no 1 in total brand equity (BE = 22.92), followed closely by Sony Ericsson (21.41). Motorola was rather distant from the first two (18.76) while Samsung (18.43) ranked last. Nokia has the highest brand equity at 22.92 and it surpasses all the other brands in terms of the dimensions of brand equity except for brand image where Sony Ericsson has the upper hand. This means that Nokia has consumer franchise in terms of loyalty and perceive quality compared to other brands. The brand equity measurement is a good tool for marketers. Marketers are able to monitor the performance of individual components of brand equity and take corrective actions.

Brands	Brand Loyalty ^a		Perceived Quality ^a		Brand Image ^a		Total Brand Equity
Nokia	5.47	(n=148)	5.56	(n=144)	5.20	(n=143)	16.23
Samsung	4.40	(n=31)	5.09	(n=31)	4.82	(n=31)	14.31
Sony Ericsson	5.21	(n=85)	5.33	(n=83)	5.43	(n=81)	15.97
Motorola	4.46	(n=44)	4.99	(n=43)	5.14	(n=443)	14.59

Table 10: Overall Brand Equity Rating based on the dataset

a. On a scale of 1 to 7, where 1= strongly disagree and 7 = strongly agree on positive meanings

b. Scale where 4,5 and 6 = unaided recall, and 7= top of mind brand recall

All values are Mean value of responses from respondents

Based on Table 11, Nokia is also the no 1 mobile phone brand with US\$30,131M of brand value globally (according to Interbrand 2006). Interbrand ranks Samsung (Samsung Electronics) at 2nd, followed by Sony Ericsson and Motorola. This reflected some consistency between the dataset and global perception in brand equity. However it is pertinent to state that the BER in Table 10 is tabulated based on mean score. Consequently generalisation cannot be imposed unless longitudinal studies are conducted.

Mobile Phone Brands	Brand Value Globally	Global Brand Value Ranking	Local Sales (Units)	Brand Value & Sales Ranking	Total Brand Equity	Brand Equity Ranking
Nokia	US\$30,131M	6	1,911,288	1	16.23	1
Samsung	US\$16,169M	20	830,995	2	14.31	4
Sony Ericsson	US\$11,695M	26	664,796	3	15.97	2
Motorola	US\$4,569M	69	581,696	4	14.59	3

Table 11: Global Brand Equity, Sales and Brand Value

Brand Equity as a whole

The R squared figure of 0.477 means that 47.7% of the 3 underlying components of brand equity, ie brand loyalty, perceived quality and brand image, explain the variation of the company's sales in units. The other 53% which can impact company's sales in units were not examined. In short, besides brand equity there are other reasons why people purchase a particular mobile phone. However, a strong brand that represents a mark of trust gives the buyer permission to make a decision (Farr, 2007).

Brand Loyalty

Brand loyalty has the second highest impact on company performance (see Table 9). Survey questions/statements such as "will buy this brand again", "satisfied with this brand", "been buying this brand" and "will recommend to others" were highly loaded (see Table 7). This is probably due to the fact that customers have used and are satisfied with the products. In short they have good perception of the brand. Loyalty can also stem from habitual buying behaviour. Once consumers have good experienced of a product, they may be reluctant to switch brands. This is supported in the literature that loyal customers will not be swayed by marketing stimuli like discounts and heavy promotions. Also, consumers with high brand loyalty tend to be zealous in recommending the brand to others as explained by Aaker (1991). Keller (1993) suggests that brand loyalty actually 'insulates the brand from a measure of competitive threats' and "provide competitive advantage and opportunities for brand extension". Atilgan et al. (2005) explains that brand loyalty is the most influential dimension of brand equity. This can describe why brand loyalty has such a high impact on company performance like sales.

Perceived Quality

From Table 9, there was insufficient evidence to conclude that perceived quality has an association with mobile phone companies' performance. One explanation is customers assumed equality of variance in quality in the 4 major brands; hence it is not something that will really move them to buying the brand. This is depicted in Table 10 as perceived quality rating of the 4 brands are quite close to each other (the mod is only 0.57). Similar study by Kayaman and Arasli (2007), show that perceived quality did not have any direct relationship with brand equity and therefore did not really impact the company performance.

Brand Image

Brand image appeared to have a small effect on the performance of mobile phone companies. Referring to Table 10, the researchers opine that the reason for Sony Ericsson's higher brand image rating compared to Nokia is because Sony Ericsson is well known for its mobile music, software and accessories. Sony's very strong brand equity in the consumer electronics market has definitely complemented the brand image for Sony Ericsson with regards to both its music and camera capability. In the last two years Sony Ericsson has become an industry leader in both mobile imaging and music phones thanks to the outstanding success of the Walkman and Cyber-Shot branded handsets (Sony Ericsson Celebrates, 2006). Nokia's image has always been consistent with its simple-to-navigate user interface (UI) and its stylish design (Kevi, 2007). Samsung created a sleek appeal and great design image (Samsung Launches Slim, 2007). Motorola's image is about fashion and form which earned its reputation while it still falls behind in terms of functionalities (Hughlett, 2007).

When it comes to brand image, the survey questions which were loaded highly were 'proud owning the phone', "owned by hip and happening people", "it's a companion" and "fashion accessory" (see Table 7). These questions clearly show that brand image matter to the consumer psychological constructs. In fact, Westbrook (1987) suggests that consumers will be more inclined to recommend the brand when they associate this brand with highly relevant emotional experience. This may mean that the more affinity and personal identification the customers have with the brand, the chances of them recommending it (thus increasing company performance) increases. This argument is also supported by Rio et al. (2001), Pappu et al. (2005), Kim et al (2003) and Kim & Kim (2004). They concluded that brand image is important to increasing word of mouth recommendation hence company performance.

CONCLUSION

Researches in the past have demonstrated that brand equity can be looked into from the financial perspective, the customer perspective and the combined perspective. In the opinion of the researchers, the combined perspective of brand equity measures is particularly popular as it is able to record current consumer trends and perceptions, to oversee attitudes which changes over time and to meet the customers' needs and wants. This study used the combined perspective of brand equity measures to investigate the impact of the three underlying brand equity dimensions on company performance in the mobile phone industry. The dimensions that were examined were brand loyalty, perceived quality and brand image.

The scale comprising of 27 variables manifested the 3 dimensions of brand loyalty, perceived quality and brand image. Due to limited resources, the dataset was restricted to a small sample in the Klang Valley. However the dataset provided some insightful information on brand equity. Sales figures in units, as the indicator for company performance, used in this study were not presented due to the non-disclosure agreement with the companies involved. Results concluded that the customer-based brand equity measurement is a reliable tool to measure the impact of brand equity dimensions on company sales performance. Findings revealed that brand loyalty and image have a positive effect on the company's performance manifested by sales in units. Brand loyalty is considered the most important construct due to its stronger β coefficient between the two. Perceived quality is not a significant component to affect firms' performance due to insufficient evidence from the dataset. The results of this study imply that strong brand equity is an important construct in consumer buying behaviour.

Future research can attempt to examine brand equity across other brands besides the major 4 brands. If smaller competitors are included into the study, there is a possibility that the R square can improve implying that brand equity may play a more significant role in company performance. Further research may include brand awareness as an important construct as indicated in Aaker's Model. It is important that the results can confirm its impact on performance; whether the impact is significant or marginal.

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THE ROLE OF LGD IN CREDIT RISK MITIGATION: THE REMUNERATION ENHANCEMENT DILEMMA

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Purpose – The objective of this paper is to contribute to the debate about the current financial crisis and highlight the ambiguous role of Loss Given Default (LGD) in credit risk mitigation. Our motivation is to stress that both lenders and borrowers are partners in the alleged U.S. sub prime mortgage market crime with the misuse of the LGD mechanism as a Trojan Horse. In over-liquidity times, bank management faces more imperatively the dilemma to mitigate or not the *ex ante* credit risk of sub prime mortgage customers in order to enhance the reported performance of their organisations and their remuneration respectively. Surprisingly, the preceding considerations were neglected by the Basel Committee on Banking Supervision in its proposed enhancements to the Basel II framework. The paper argues that there is an incentive for synergy among bank management, property appraisers and mortgage customers as long as their decisions are based on short term criteria.

Design/methodology/approach – In this paper an advanced IRB retail credit scoring system is constructed in accordance with the Basel II framework and the current literature. The impact of the real estate bubble on LGD and the manipulation of that system are studied. The gap between *ex ante* and *ex post* Expected Loss (EL) is also explored.

Findings – The paper shows how the LGD mechanism can be used in the manipulation of an advanced IRB retail credit scoring system. Through such practice a sub prime mortgage customer is presented as a highly attractive prime bank customer.

Practical implications – The regulatory authorities should take into consideration such misuses and bank practices that bend the Basel II framework in order to prevent retail banks from becoming real estate companies.

Originality/value – The contribution of the paper is embedded in the unveiling of the ambiguous role of LGD in credit risk mitigation and the propositions made to the Basel Committee on Banking Supervision in order to enhance the Basel II framework.

Keywords Credit risk mitigation, LGD, Basel II, A-IRB credit scoring

Paper type Case study

INTRODUCTION

It is almost two years since the current economic crisis has broken out and the modern world is still experiencing its consequences in multiple levels. According to many analysts, professionals and politicians, the western economies are still in the eye of the economic cyclone and they express their concerns that we have only seen the peak of the iceberg. Moreover, a debate is in progress about the origin of the crisis, the rampant spread of uncertainty in financial markets and the responsibilities of each stakeholder. Unfortunately, the information asymmetry that prevails in credit markets enforced uncertainty while the gap between *ex ante* and *ex post* expected loss of financial institutions prolongs that uncertainty. In an effort to mitigate the effects of the current crisis and prevent the repetition of similar phenomena in the future, the Basel Committee on Banking Supervision published a consultative document with its proposed enhancements to the Basel II framework (BCBS, 2009). However, it is extremely difficult to assess the adequacy and efficiency of the preceding proposals due to the complexity of the contemporary financial markets and products.

Our main concern and objective of this paper is to contribute to the current debate about the economic crisis and highlight the ambiguous role of Loss Given Default (LGD) in credit risk mitigation. Our motivation is to stress that both lenders and borrowers are partners in the alleged U.S. sub prime mortgage

market crime with the misuse of the LGD mechanism as a Trojan Horse. Although securitisation is immensely important in the expansion of the crisis, the birth cause of the crisis is associated with the information asymmetry that characterises credit markets. The role of LGD is crucial in credit risk mitigation since LGD is one of the three variables that influence the Expected Loss (EL) of financial institutions which choose an Advanced Internal Ratings Based (A-IRB) approach for the determination of their capital requirements against credit risk. Nevertheless, it seems that the current debate is focused only on the expansion of risk and uncertainty while the role of LGD is obviously neglected. In addition, some aspects of the crisis concerning the recovery rate of loans can be viewed within an agency theory framework. Thirty years ago Jensen and Meckling (1976) mentioned the difficulties in maintaining the goal congruence of shareholders with agents and creditors and still their arguments seem to be even more contemporary.

The remainder of this paper is organised as follows: In the second part, we present a review of related literature concerning the role of LGD in credit risk mitigation. In the third part, we construct an A-IRB retail credit scoring system in accordance with the Basel II framework and the current literature. Our argument that an agency problem may arise out of the appraisal process of the collateral and how such a problem can be used in the manipulation of credit scoring systems is documented in the fourth part of this paper. The fifth part summarises the practical implications of our study. Our concluding remarks are reported in the last part of this paper.

LITERATURE REVIEW

Although there are numerous studies concerning the financial distress signalling and the prediction of corporate failure, there are less studies concerning the prediction of the probability to default for retail borrowers and virtually only few numbered papers investigate the role of LGD and the recovery rates of bank loans especially in the retail – mortgage market. The effort to discriminate the financially distressed from the financially viable corporations was enhanced by the use of financial ratios. Initially, academics were consumed in the prediction of corporate failure by using discriminant and logistic analysis and by finding the appropriate financial ratios that maximised the predictive power of their models (Altman, 1968; Altman et al., 1977; Altman, 1984; Johnsen and Melicher, 1994). Later, artificial neural network approaches were employed and their results were intensively compared with those of the discriminant and logit models (Altman et al., 1994; Lin and McClean, 2001; Alfaro et al., 2008; Yim and Mitchell, 2007; Etemadi et al., 2008). In any case, this comparison unveiled not only the superiority of artificial neural network approaches over the discriminant and logit models but also the instability of financial patterns of distressed corporations (Martikainen and Ankelo, 1991).

Simultaneously, similar methodologies were used to identify the factors that influence retail loan delinquency. Gabriel and Rosenthal (1991) found that wealth, employment, house location, house price appreciation and race are significant factors for the default of a mortgage and the eligibility of a mortgage customer. They concluded that minority households are less likely to obtain conventional financing than are white households, even after controlling for various proxies of the probability and the cost of default which indicates racial discrimination in mortgage markets as well. The research about the relevance of the initial loan-to-value (LTV) ratio on the probability of mortgage default had conflicting results. Although Deng et al. (1996) found association among default sensitivity and LTV ratio, unemployment and divorce, Lambrecht et al. (1997) supported that cash flow variables, such as salary and interest rate paid are significant parameters while LTV ratios are insignificant in the U.K. mortgage market. On the other hand, Liu and Lee (1997) argued that besides LTV ratio, borrower's family status and education level are significantly correlated with the risk of default. In his eight EU countries' survey, Diaz-Serrano (2005) supported that income volatility and savings showed a statistically significant effect on the probability of mortgage default; positive for income volatility and negative for savings.

In this context, the Basel Committee on Banking Supervision introduced in 1988 a capital measurement system referred to as Basel Capital Accord in order to provide a global framework for credit risk measurement with a minimum capital requirement of 8%. Later in 2004, the framework was revised, improved and became a guide for international banking legislation, known as Basel II. According to the

revised framework of Basel II financial institutions are allowed to choose between the Standardised Approach (SA) and the IRB Approach for the assessment of their credit risk and the calculation of their regulatory capital charges (BCBS, 2004). The SA allows small and less sophisticated financial institutions to classify their customers by using external credit ratings while big and more sophisticated financial institutions can determine their credit risk based on internal default experience. The main advantage of the IRB approach is that it offers greater credit risk sensitivity and consequently, big financial institutions have an incentive to adopt the IRB Approach for their credit risk measurement leaving the small banks to benefit from the adoption of the SA. Ruthenberg and Landskroner (2008) found evidence that bank customers with lower probability of default enjoy lower loan interest rates in big financial institutions while bank customers with higher probability of default enjoy relatively lower loan interest rates in small banks. This is consistent with the prior study of Altman et al. (2002) who investigated the relative accuracy of the Standardised model's risk weights under Basel II framework. They found that the risk of the three highest rating classes (AAA to AA-, A+ to A- and BBB+ to BB-) of the Standardised model is "over-priced" under Basel II while the pricing of the below BB- category is justified. They computed a capital requirement for the preceding rating classes of 0%, 1% and 2.5% in contrast to the respective Basel II 1.6%, 4% and 8%.

According to Basel II framework we define the Expected Loss (EL) as a percentage figure of the Exposure At Default (EAD) as

$$EL = PD \times LGD \quad \text{where}$$

PD is the Probability of Default of the counterparty and

LGD is the Loss Given Default or,

$$\text{as an amount} \quad EL = PD \times EAD \times LGD \quad (\text{BCBS, 2005}).$$

Furthermore, PD estimation can be based on internal default experience or/and mapping to external data or/and statistical default models (BCBS, 2004, par.461) while LGD estimation should not be based only on collateral's market value but on historical recovery rates as well (BCBS, 2004, par.470). Finally, EAD estimation for on-balance sheet items, such as loans, can be no less than the current drawn amount (BCBS, 2004, par.473). Unfortunately, the preceding formula used for the computation of EL implies that PD and LGD are independent and thus uncorrelated variables while there is evidence that this is not the case. In fact, there is an inverse relation between PD and LGD (De Laurentis and Mattei, 2009). Apparently, as borrower risk increases collateralisation increases as well in order to improve the recovery rate. There is a strong indication that financial institutions have an incentive to mitigate their credit risk exposure by using collaterals to balance the poor quality of their customers since the weighted average of LGD as a percentage of EAD can be computed as follows:

$$LGD \% = 1 - (\text{Recovery value}/EAD)$$

The preceding argument is consistent with the Basel II framework that requires banks to deduct from their Tier 1 & 2 capital any EL amount in case EL exceeds provisions made.

Subsequently, prospective retail bank customers can become eligible for loan granting and enjoy lower interest rates by decreasing their EL, achieving that by decreasing their LGD. This is feasible with the following two ways: a) if the prospective customer provides more collateral to the bank and b) if the appraiser manipulates (overstates) the market value of the existing collateral. Undoubtedly, bank management has an incentive to manipulate the market value of the collateral and hence, LGD in order to minimise capital charges, increase reported profits and thus enhance their remuneration. There is evidence to support the notion that property appraisers are not independent of their clients (banks), indicating that a

moral hazard problem can arise if bank management rewards the property appraiser with future business for “successful” appraisals. Gwin and Maxam (2002) showed that an appraiser may have the incentive to overstate the value of the property if the lender wants him to do so. Having in mind that credit markets are characterised with information asymmetry and in the case of Enron, information asymmetry and opportunistic behaviour of executives, auditors and legal firms made the collapse even more catastrophic (Arnold and de Lange, 2004), it is self-evident that the agency relationship exists in business corporations as well as banks and since agents (bank managers) do not always act in the best interest of their employers (shareholders) (Jensen and Meckling, 1976), they have an incentive to manipulate their reported profits, through LGD in order to enhance their remuneration. The manipulation of EL is feasible not only in retail customers but also in corporate customers. Kosmidis and Terzidis (2010) showed that the EL of corporate customers can be manipulated in many ways as well due to creative accounting practices that allow the manipulation not only of the LGD but also of the PD. The issue of appraisers’ conflicts of interest becomes more distinctive than ever before.

CONSTRUCTING AN A-IRB RETAIL CREDIT SCORING SYSTEM

One of the main objectives of this paper is to support that there is a goal congruence of bank management and property appraisers as long as their remuneration schemes are based on short-term criteria (e.g. accounting profits). Unfortunately, there is always space for manipulation when personal greed guides managerial action. In fact, when there is a synergy among bank management, retail customers and property appraisers the results are even more disastrous. In this section, we will try to construct an A-IRB retail credit scoring system in accordance with the Basel II framework and the current literature. The choice of variables is based on the results of Finlay’s (2009) and Liu and Lee’s (1997) studies. We will then attempt to show how the property appraisal can be used in the manipulation of that system.

<i>Criteria</i>			<i>Notes</i>
1	MS	MARITAL STATUS	<i>married with x children, single, widow(er), divorced</i>
2	OC	OCCUPATION	<i>civil servises, full and part-time employee, employer, unemployed</i>
3	TCA	TIME IN CURRENT OCCUPATION	<i>unemployed, retired, x years</i>
4	AG	AGE	<i>x years old</i>
5	AS	ACCOMODATION STATUS	<i>tenant, guest, owner of x flats, x houses</i>
6	EL	EDUCATION LEVEL	<i>elementary, junior-high, senior-high, university, post-graduate</i>
7	PP	PURCHASE PURPOSE	<i>private use, investment</i>
8	IPCR	INTEREST & PRINCIPAL COVERAGE RATIO	<i>ratio of annual payment of interest and principal to annual gross income</i>
9	SR	SOLVENCY RATIO	<i>ratio of total debts to total assets</i>
10	LVR	LOAN TO VALUE RATIO	<i>ratio of the loan amount to the appraised value of the property</i>
11	DB	DEBT BALANCE	<i>ratio of other annual debt payments to annual gross income</i>
12	PC	PREVIOUS TRANSACTIONS	<i>(loans well paid, delayed months, default, no transactions)</i>

Table 1 Criteria

In this context, we set four quantitative criteria (income related and LTV ratios, No8-11) and eight qualitative criteria (No1-7 and No12, see Table 1) and rank the score into six scoring classes or buckets from A to F. All borrowers who fall in the same bucket are assigned with the same PD that can be considered as the mean of individual PDs (Krink et al., 2008). As we can see in Table 2, there are twelve criteria in total, six PD buckets and the weights for each criterion and bucket. It is easy to understand that the more scoring classes an A-IRB system has, the more risk sensitive is. The most important criteria are No 8 the interest and principal coverage ratio and No 12 previous transactions (weight 10 credits or 13.33%) while the least important criterion is the purchase purpose of the property (weight 3 credits or 4%). The buckets from A to F multiply their credits for each criterion by a number that varies from 4 to -1 respectively. The lowest

possible scoring a retail customer can achieve is -54 credits and the highest possible scoring is 300 credits. According to Ruthenberg and Landskroner (2008), the turning point for retail customers is PD=13.4% meaning that retail borrowers with PD>13.4% can be considered as high-risk customers while retail borrowers with PD<13.4% can be considered as low-risk customers. In our model, low-risk retail customers can be considered those who achieve scorings from C and upwards (A-C) while scorings from D and downwards (D-F) characterise high-risk retail customers.

		A	B	C	D	E	F			
	PERFORM	4	3	2	1	0	-1	WEIGHTS	CREDITS	%WEIGHTS
1	MS							5	20	6.67%
2	OC							6	24	8.00%
3	TCA							4	16	5.33%
4	AG							5	20	6.67%
5	AS							4	16	5.33%
6	EL							4	16	5.33%
7	PP							3	12	4.00%
8	IPCR							10	40	13.33%
9	SR							8	32	10.67%
10	LVR							8	32	10.67%
11	DB							8	32	10.67%
12	PC							10	40	13.33%
	TOTAL								300	100.00%

Scoring	A	B	C	D	E	F
Credits	261-300	201-260	126-200	51-125	0-50	<0
PD %	1%	4%	8%	20%	30%	100%

Table 2 PD Scoring

The retail borrower's performance in each criterion and the assignment to a PD bucket can be viewed in Table 3. For instance, a thirty six years old, civil servant retail customer who is married and has two children, with IPC ratio=0.12, LTV ratio=0.18, solvency ratio=0.05, debt balance=0.04 and a history of three well paid loans etc. is assigned to A PD bucket and considered to be a retail borrower with the lowest possible risk. However, in most cases the performance of a retail customer varies in each criterion. Hence, it is possible for a retail customer to have IPC ratio=0.10 and LTV ratio=0.70. That corresponds to A bucket for the former ratio (the weight of the ratio 10 credits is multiplied by 4) and to D bucket for the latter (the weight of the ratio 7 credits is multiplied by 1). The overall performance of a retail customer and its assignment to a PD bucket depends solely on the total number of credits accumulated.

		A	B	C	D	E	F
CRITERIA		4	3	2	1	0	-1
1	MS	<i>m2c</i>	<i>m1c</i>	<i>m</i>	<i>s</i>	<i>w</i>	<i>d</i>
2	OC	<i>cs</i>	<i>fte</i>	<i>emr</i>	<i>pte</i>	<i>u</i>	
3	TCA	<i>>15y</i>	<i>5-15y</i>	<i>1-4y</i>	<i>r</i>	<i><1y, u</i>	
4	AG	<i>30-39y</i>	<i>40-49y</i>	<i>50-59y</i>	<i>20-29y</i>	<i><20y</i>	<i>>60y</i>
5	AS	<i>o2f/h</i>	<i>oh</i>	<i>of</i>	<i>g</i>	<i>t</i>	
6	EL	<i>pg</i>	<i>u</i>	<i>sh</i>	<i>jh</i>	<i>e</i>	
7	PP	<i>pu</i>		<i>in</i>			
8	IPCR	<i><0.15</i>	<i>0.16-0.29</i>	<i>0.30-0.44</i>	<i>0.45-0.59</i>	<i>0.60-0.74</i>	<i>>0.75</i>
9	SR	<i><0.10</i>	<i>0.10-0.19</i>	<i>0.20-0.39</i>	<i>0.40-0.69</i>	<i>0.70-1</i>	<i>>1</i>
10	LVR	<i><0.20</i>	<i>0.20-0.39</i>	<i>0.40-0.64</i>	<i>0.65-0.89</i>	<i>0.90-1</i>	<i>>1</i>
11	DB	<i><0.05</i>	<i>0.05-0.09</i>	<i>0.1-0.14</i>	<i>0.15-0.19</i>	<i>0.20-0.24</i>	<i>>0.25</i>
12	PC	<i>2 lwp</i>	<i>1lwp</i>	<i>nt</i>	<i>1 ldl 3m</i>	<i>1 ldl 12m</i>	<i>1 ldf</i>
		<i>initial scoring</i>					
		<i>deviation from intial scoring</i>					

Table 3 Criteria Scoring

As far as the LGD estimation is concerned, it is based on the market value of the collateral and historic recovery rates as presented in Table 4. From the exhibited types of collateral, bank deposits in domestic currency and government bonds are considered to be of the lowest risk, LGD=0% indicating 100% recovery rate and machinery, equipment and commodities (e.g. cars) are considered to be of the highest risk, LGD=60% indicating only 40% recovery rate. Nevertheless, it is not unusual for a retail customer to provide more than one assets as collateral for his/her bank borrowings.

<i>TYPE OF COLLATERAL</i>	<i>LGD% Market Value</i>
<i>GUARANTEES FROM EU MEMBER STATE</i>	10%
<i>COLLATERALIZED BANK DEPOSITS IN DOMESTIC CURRENCY</i>	0%
<i>COLLATERALIZED BANK DEPOSITS IN FOREIGN CURRENCY</i>	15%
<i>GOVERNMENT BONDS</i>	0%
<i>MACHINERY & EQUIPMENT</i>	60%
<i>URBAN RESIDENCES AND OFFICES</i>	25%
<i>URBAN LAND</i>	40%
<i>HOTELS</i>	40%
<i>RURAL RESIDENCES</i>	30%
<i>INDUSTRIAL LAND & BUILDINGS</i>	50%
<i>RURAL LAND</i>	40%
<i>COMMODITIES (cars)</i>	60%
<i>BANK CHECKS FROM CLIENTS</i>	30%
<i>SHARES OF LISTED COMPANIES</i>	40%

Table 4 Historic Rates of Collateral LGD

PROPERTY APPRAISAL AND MANIPULATION OF AN A-IRB CREDIT SCORING SYSTEM

In our case analysis, let us consider Mr. John Smith, a thirty six years old man, full-time employed for the last three years who is married and has one child. He is a university graduate, rents a flat and wishes to buy a new flat to live in for 160,000€. His annual family gross income is 27,000€ and he bought a new car for 20,000€ last year which it was 100% financed by a five year loan with 8% interest rate from C Bank (5 annual instalments). He is willing to offer 10,000€ downpayment and applies to C Bank for a residential mortgage of 150,000€ in order to cover the full price of the flat. The mortgage will be paid back with 6% fixed interest rate in twenty annual instalments. Unfortunately, the first instalment of the 20,000€ loan is overdue three months. As we can see in Appendix A and B, the annual instalment for the 20,000€ loan is 5,009€ and for the applied 150,000€ mortgage is 13,078€.

In Table 3, we can see the scoring of Mr. John Smith (grey boxes) to the above twelve criteria and in Table 5 his performance, his total credits and the PD bucket that is assigned to. The computation of the ratios is based on the notes of Table 1. Obviously, Mr. John Smith accumulates 113 out of 300 credits which is the maximum score and that corresponds to D scoring class with 20% probability of default. According to the preceding analysis, PD 20% is much higher than the threshold of 13.4% making Mr. John Smith a high-risk retail borrower.

		A	B	C	D	E	F			
	PERFORM	4	3	2	1	0	-1	WEIGHTS	CREDITS	%WEIGHTS
1	MS		3					5	15	5.00%
2	OC		3					6	18	6.00%
3	TCA			2				4	8	2.67%
4	AG	4						5	20	6.67%
5	AS					0		4	0	0.00%
6	EL		3					4	12	4.00%
7	PP	4						3	12	4.00%
8	IPCR				1			10	10	3.33%
9	SR					0		8	0	0.00%
10	LVR					0		8	0	0.00%
11	DB				1			8	8	2.67%
12	PC				1			10	10	3.33%
	TOTAL								113	37.67%

Scoring	A	B	C	D	E	F
Credits	261-300	201-260	126-200	51-125	0-50	<0
PD %	1%	4%	8%	20%	30%	100%

Table 5 PD Scoring of Mr. John Smith

As far as LGD estimation is concerned, Mr. John Smith offers his car and the flat he is willing to buy as collateral for the applied mortgage of 150,000€. The weighted average of LGD as a percentage of EAD is 24.71% (see computations in Table 6). Further, the EL's absolute value is 8,400€, 4.94% of the EAD, which is forbiddingly high and should lead C Bank to the rejection of the application. Although the collateral decreased the EL from 20% to 4.94%, it is still extremely risky for C Bank to grant that mortgage. In that case, Mr. John Smith would not be able to buy the flat he wishes and C Bank could not increase its reported profits because of lower interests earned. Since bank managers' remuneration is based on reported profits, it would probably be decreased although they acted in the best long-term interest of their employers (bank shareholders).

<i>COLLATERAL</i>	<i>MARKET VALUE</i>	<i>LGD%</i>	<i>RECOVERY VALUE</i>
<i>URBAN RESIDENCES AND OFFICES</i>	<i>160,000</i>	<i>25.00%</i>	<i>120,000</i>
<i>COMMODITIES (CARS)</i>	<i>20,000</i>	<i>60.00%</i>	<i>8,000</i>
<i>TOTAL</i>	<i>180,000</i>		<i>128,000</i>
<i>EAD / WA LGD</i>	<i>170,000</i>	<i>24.71%</i>	

<i>EXPECTED LOSS in EUR</i>	<i>8,400</i>
<i>EXPECTED LOSS %</i>	<i>4.94%</i>

Table 6 Expected Loss of Mr. John Smith

Let us assume that Mr. John Smith is desperate to buy that flat in any circumstances, the bank manager of C Bank is determined to get that Christmas bonus and the property appraiser is not a virtuous person. In such case, every stakeholder has an obvious incentive for C Bank to grant that mortgage except for bank shareholders. Mr. John Smith will acquire a new flat, the bank manager will probably get his/her bonus and the property appraiser will be rewarded at least with future business. In the preceding process the main stakeholder (bank shareholder) is excluded. The only barrier that prevents the bank manager from granting that mortgage is the EL of 4.94%. In order to overcome that obstacle, the property appraiser is convinced by the joint efforts of Mr. John Smith and the bank manager to overstate the market value of the flat at 240,000€ (+80,000€).

The overstated appraisal modifies the solvency ratio and the loan to value ratio. The former ratio decreases from 0.94 to 0.65 while the latter ratio decreases from 0.94 to 0.63. In Table 3, we can see the deviation from the initial scoring of Mr. John Smith (red boxes) to the above twelve criteria and in Table 7, we can see his performance, his total credits and the PD bucket that is assigned to. Again, the computation of the ratios is based on the notes of Table 1. Mr. John Smith achieves 137 out of 300 credits that correspond to C scoring class with 8% probability of default. According to the preceding analysis, Mr. John Smith is a retail customer with acceptable risk level since his PD is much lower than 13.4%. Furthermore, the recovery value as a percentage of EAD is 100% and the weighted average of LGD as a percentage of EAD is 0% due to the overstatement of the flat's market value. The EL as an amount is 0€ and as a percentage figure of the EAD is 0% as well (see Table 8). Since the recovery value of collateral is bigger than the EAD, LGD as a percentage of EAD and EL% are always 0%. In this case, C Bank will probably satisfy Mr. John Smith's application and grant a mortgage of 150,000€, considering him as a counterparty of relatively low risk (highly attractive retail customer).

		A	B	C	D	E	F			
	PERFORM	4	3	2	1	0	-1	WEIGHTS	CREDITS	%WEIGHTS
1	MS		3					5	15	5.00%
2	OC		3					6	18	6.00%
3	TCA			2				4	8	2.67%
4	AG	4						5	20	6.67%
5	AS					0		4	0	0.00%
6	EL		3					4	12	4.00%
7	PP	4						3	12	4.00%
8	IPCR				1			10	10	3.33%
9	SR				1			8	8	2.67%
10	LVR			2				8	16	5.33%
11	DB				1			8	8	2.67%
12	PC				1			10	10	3.33%
	TOTAL								137	45.67%

Scoring	A	B	C	D	E	F
Credits	261-300	201-260	126-200	51-125	0-50	<0
PD %	1%	4%	8%	20%	30%	100%

Table 7 Manipulated PD Scoring of Mr. John Smith

COLLATERAL	MARKET VALUE	LGD%	RECOVERY VALUE
URBAN RESIDENCES AND OFFICES	240,000	25.00%	180,000
COMMODITIES (CARS)	20,000	60.00%	8,000
TOTAL	260,000		188,000
EAD / WA LGD	170000	0.00%	

EXPECTED LOSS in EUR	0
EXPECTED LOSS %	0.00%

Table 8 Manipulated Expected Loss of Mr. John Smith

IMPLICATIONS

One of the main objectives of this paper is to investigate the role of LGD in credit risk mitigation especially in the retail – mortgage market which was, surprisingly overlooked by the Basel Committee on Banking Supervision in its proposed enhancements to the Basel II framework (BCBS, 2009). Under Basel II framework, financial institutions were forced to adopt empirically-based methodologies for the assessment of their credit risk exposure although they do not ignore the subjective judgement of their experts. There is evidence that borrowers with an intense client relationship with the bank exhibit higher recovery rate (Grunert and Weber, 2009). Moreover, Qi and Yang (2009) studied LGD of high LTV residential mortgages and found LTV is statistically and economically related to LGD and higher LTV is associated with higher LGD. In fact, they observed current LTV (CLTV) has a much higher correlation with LGD than LTV and not surprisingly, regression with CLTV has much better explanatory power than that without CLTV. The actual average LTV at origination is around 90% whereas at time of default the average CLTV increases to 104%. This is also consistent with our analysis and an indication that the market value of property is more likely to be overstated at origination when bank managers face the remuneration enhancement dilemma than at the time of default. Since the expected life of a residence is much longer than the period of the respective mortgage and in times of low interest rates, the annual decrease of the principal is probably bigger than the

decrease of the collateral's market value as long as it is fairly appraised. This is a reason that justifies the periodical appraisal of the collateral's market value.

Although resecuritisation is mainly responsible for the expansion of risk and uncertainty, it is vital to understand that the so-called "domino-effect" would not have started in the U.S. sub-prime mortgage market if the original borrowers a) had the ability to pay back their debts or b) did not consider to default as an optimal decision of rational consumers according to the options-based mortgage default theory. In the case of Qi and Yang (2009) study, the latter choice was the 51.7% of their sample. In addition, the 24.71% LGD computed in Table 6 indicates a recovery rate of 75.29% that is close to the 74.03% recovery rate of Grunert and Weber, (2009) and the 71% of Dermine and Neto de Carvalho (2006). If we consider the recovery rate of Table 6 (75.29%) as fair and hence ex post and the manipulated recovery rate of Table 8 as optimistic and hence ex ante, we can define the gap in their respective EL as agency costs. In our case, this costs are 8,400€ or 4.94% which are probably much bigger than the remuneration of the bank manager. In that sense, it would be wise for the shareholders to motivate the bank manager with a bonus scheme that is not based on short term criteria (e.g. reported profits) but on medium and long term criteria (e.g. delinquency rates of mortgages granted for the last x years).

From the preceding analysis, there is an indication that the "triangle of opportunism" exists not only in corporate markets (Kosmidis and Terzidis, 2010) but also in retail and mortgage markets. The main difference here is that the incentive for synergy exists among bank management, property appraisers and mortgage customers. Consequently, the manipulation (overstatement) of the market value of the collateral can lead to zero LGD and respectively to zero EL since $EL \% = PD \times LGD$. In this way a bank, which grants extremely high-risk mortgages, can be presented at least for a short period of time, as a low-risk bank through the manipulation of the market value of its collaterals, the reduction of its expected losses and the appropriate provisions and the increase of its earnings, reserves and capital ratio. In order to moderate the impact of LGD on the EL and prevent retail banks from becoming real estate companies, a lower limit of EL as a percentage of PD could be imposed. Thus, $EL \% \geq Y \times PD$ where $0 < Y < 1$. Furthermore, the greater the Y the greater the impact of PD on the EL while the less the Y the greater the impact of LGD on the EL.

CONCLUSIONS

The motivation of this paper is the consultative document with the proposed enhancements to the Basel II framework that was released on January 2009 by the Basel Committee on Banking Supervision. We constructed an A-IRB retail credit scoring system in accordance with the Basel II framework. We supported our argument that there is an incentive for synergy among bank management, property appraisers and mortgage customers while the LGD mechanism can be used as a Trojan Horse in the manipulation of such systems. A practical illustration of the above manipulation was provided in a case study analysis. The Basel II framework about the formula of EL implies that PD and LGD are independent and thus uncorrelated variables while there is evidence that this is not the case. The prior work of De Laurentis and Mattei, (2009) about the inverse relation between PD and LGD is consistent with our analysis which indicates that financial institutions have an incentive to mitigate their credit risk exposure by using collaterals to balance the poor quality of their customers. Although, Mr. John Smith was a fictitious person with fictitious credit scorings, the practical implications of our case study and the current credit crisis are very real.

The contribution of the paper is the propositions made to the following stakeholders: a) the Basel Committee on Banking Supervision in order to impose the periodical appraisal of the collateral's market value, b) the Basel Committee on Banking Supervision in order to mitigate the impact of LGD on the EL and c) the bank shareholders in order to motivate their managers with remuneration schemes that are based on long term criteria. Thus, the weight of PD will be enforced and the financial institutions will be motivated to attract lower-risk customers than high-risk customers with overstated property. Further research is necessary for the validation of the proposed formula of the EL.

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APPENDIX A

No	Principal t	Annual Instalment	Interest	Annual Principal Paid	Principal t+1
1	20,000.00	5,009.13	1,600.00	3,409.13	16,590.87
2	16,590.87	5,009.13	1,327.27	3,681.86	12,909.01
3	12,909.01	5,009.13	1,032.72	3,976.41	8,932.60
4	8,932.60	5,009.13	714.61	4,294.52	4,638.08
5	4,638.08	5,009.13	371.05	4,638.08	0.00

APPENDIX B

No	Principal t	Annual Instalment	Interest	Annual Principal Paid	Principal t+1
1	150,000.00	13,077.68	9,000.00	4,077.68	145,922.32
2	145,922.32	13,077.68	8,755.34	4,322.34	141,599.97
3	141,599.97	13,077.68	8,496.00	4,581.69	137,018.29
4	137,018.29	13,077.68	8,221.10	4,856.59	132,161.70
5	132,161.70	13,077.68	7,929.70	5,147.98	127,013.72
6	127,013.72	13,077.68	7,620.82	5,456.86	121,556.86
7	121,556.86	13,077.68	7,293.41	5,784.27	115,772.59
8	115,772.59	13,077.68	6,946.36	6,131.33	109,641.26
9	109,641.26	13,077.68	6,578.48	6,499.21	103,142.05
10	103,142.05	13,077.68	6,188.52	6,889.16	96,252.89
11	96,252.89	13,077.68	5,775.17	7,302.51	88,950.38
12	88,950.38	13,077.68	5,337.02	7,740.66	81,209.72
13	81,209.72	13,077.68	4,872.58	8,205.10	73,004.62
14	73,004.62	13,077.68	4,380.28	8,697.41	64,307.21
15	64,307.21	13,077.68	3,858.43	9,219.25	55,087.96
16	55,087.96	13,077.68	3,305.28	9,772.41	45,315.55
17	45,315.55	13,077.68	2,718.93	10,358.75	34,956.80
18	34,956.80	13,077.68	2,097.41	10,980.28	23,976.53
19	23,976.53	13,077.68	1,438.59	11,639.09	12,337.44
20	12,337.44	13,077.68	740.25	12,337.44	0.00

SIX SIGMA APPLICABILITY IN SMES: IN SMALL ECONOMIES

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Purpose: Nowadays companies irrespective of industry and legal status are facing serious business pressures, not just to continuously streamline their operations and cut costs, but also to grow, nurture innovation, gain a competitive edge, as well as, survive. Quality can no longer be just about processes, products, services or people. Whilst there are a number of qualified methodologies, the researchers have opted to utilise the tools available through Six Sigma. The principal purpose of this paper is to identify if this methodology can be applied in small economies and more specifically to SMEs.

Design/methodology/approach: Five service industries were selected, namely Hospitality and Tourism, Banking and Finance, Construction and Real Estate, Automotive and Transport, and Healthcare. These industry sectors were identified as the ones to be surveyed using quantitative and qualitative methods.

Research limitations/implications: Since this is a relative new methodology to the Cypriot entrepreneur and regrettably at the time of carrying out the study an international financial crisis caused a lot of financial problems to many respondents and as such could not see the immediate effects or benefits of Six Sigma and were reluctant to co-operate or participate. However, once they were convinced to join the focus group meetings and realized what Six Sigma is all about they became enthusiastic in being involved and some organizations came forward immediately requesting to be considered for the pilot programs.

Practical implications. The Six Sigma methodology can be customized to industrial sectors and a tailored version of the methodology can be developed for a particular process or problem. The paper illustrates the problem areas identified from both the qualitative and quantitative research per industry.

Originality/value. This is the first study carried out on Six Sigma in a small economy like Cyprus and tested on five industry sectors using both qualitative and quantitative methods.

Keywords: Six Sigma, Sigma, Lean, EFQM, TQM, SME, Industry Sectors, Cyprus.

Classification: Research Paper.

An earlier version of the paper was presented at the 2nd Annual EuroMed Conference held in Salerno, Italy 26-28 October 2009 for track 56 on Quality Control for the Service Industry.

INTRODUCTION:

The global financial crisis started to show its effects in the middle of 2007 and into 2008. The world stock markets have fallen, large financial institutions have collapsed or have been bought out, and governments in even the wealthiest nations have had to come up with rescue packages to bail out their financial systems. Six Sigma is a methodology for minimising mistakes and maximising operational significance. Ultimately mistakes have a cost, a lost customer, the need to repeat in undertaking an activity, a part that has to be replaced, time or material wasted, efficiency lost, or productivity squandered. In fact, waste and mistakes cost many organisations as much as 20 to 30 percent of their revenue. In other words it has been defined as a measure of the quality of products and services, a philosophy and a process. Higher product quality is measured by higher “ σ ” ratings and Six Sigma uses a range of tools to achieve quality. It is disciplined, data-driven approach and methodology for eliminating defects in any process. Defects and lost customers have serious repercussions for a company particularly during economic crisis. The question however is how acceptable would such a methodology be in a small economy by SMEs?

LITERATURE REVIEW

During the 1990s Total Quality Management (TQM) was the dominant theoretical and empirical paradigm for quality management and included many elements advocated by leading quality thinkers such as Deming (1986, 1994), Juran (1989) and Crosby (1979). Some argued that Six Sigma is the latest banner of

TQM (McManus, 1999), others disagree claiming it is something new (Pande et al. 2000). Schroeder et al. 2007 has carried out an extensive comparison of Six Sigma and TQM. They conclude their comparison by saying that “ what is being done in Six Sigma is not entirely new with respect to prior quality tools or principles, but the deployment approach and emergent structure of Six Sigma are new” (p.548) . “The management practices and principle” offer a new structure for improvement. “The structural differences simultaneously promote both more control and exploration in improvement efforts” (p.549). Anbari (2002) went a step further and stated:

“Six Sigma = TQM + Stronger Customer Focus + Additional Data Analysis Tools + Financial Results + Project Management.”

WHAT IS SIGMA?



Sigma is the Greek letter that is a statistical unit of measurement used to define the standard deviation of a population. It measures the variability or spread of the data.

In the world of Six Sigma companies (Ioannou, 2007), the term Sigma has to come to signify how well a business process, product, or service is meeting the requirements of the marketplace. Six Sigma has come to mean failing to meet customer requirement only 3.4 times out of a million opportunities.

WHAT IS SIX SIGMA?

Six Sigma is a data-driven method focusing on the customer and the quality of the product or services provided (Islam, 2004). It is a “very basic and systematic approach based on statistical data, which provides companies with a way to reduce these uncertainties” (Lee and Choi, 2006:893). It is a business strategy that focuses on “improving customer requirements understanding, business systems, productivity and financial performance” (Kwak and Anbari, 2006:708). It is a “systematic, data-driven approach using the Define, Measure, Analysis, Improve, and Control (DMAIC) process” (Kwak and Anbari, 2006:709).

The definitions of Six Sigma vary from “it is a business strategy used to improve business profitability, to improve the effectiveness and efficiency of all operations to meet or exceed customer needs and expectations” (Kwak and Anbari, 2006, p. 709) to being a disciplined method of rigorous data gathering and robust statistical analysis to identify sources of error and ways of eliminating them (Harry and Schroeder, 1999).

Benefits derived from the use of Six Sigma have ranged from : (a) Financial outcomes resulted from cost reduction (Lee and Choi, 2006), (b) customer and employee satisfaction (Elliott, 2003), (c) business operations being more successful, with strategies being set faster and more effectively than competitors (Lee and Choi, 2006),(d) giving priority to preventive measures that remove the root cause of the defects rather than searching for defects after they occur (Rowlands, 2003), (e) standardization measurement process common (Xagoraris, 2003), (f) driving out waste and raising levels of quality (Cua, 2001), (g) no Six Sigma project will be approved unless the team determines the savings generated from it (Antony et al. 2005), (h) Six Sigma integrates human aspects and process (Antony et al. 2005), (i) Six Sigma methodology links the tools and techniques in a sequential manner (Antony et al. 2005) and (J) Six Sigma creates a powerful infrastructure for training of champions, master black belts, black, green and yellow belts (Adams et al., 2003).

Motorola developed Six Sigma in 1987 in an effort to reduce defects (Barney, 2002). Companies which have used the Six Sigma methodology ranged from Ford, Honeywell, American Express, (Hahn et al. 2000). Companies have estimated the financial benefit of implementing Six Sigma. An example of this is General Electric which estimated in 1999 that the impact on net income derived from the implementation of Six Sigma after allowing for the cost of implementation exceeded \$2 billion (General Electric Company, 1999). Kwak and Anbari 2006:711 provide a list of the benefits/savings derived from the implementation of Six Sigma on 15 companies.

<i>Company</i>	<i>Project Metric</i>	<i>Measures Benefit /savings</i>
Motorola (1992)	In-process defect levels	150 times reduction
Raytheon/aircraft integration systems	Depot maintenance inspection time	Reduced 88% as measured in days
GE/Railcar leasing business	Turnaround time at repair shops	62% reduction
Allied signal (Honeywell)/laminates plant in South Carolina	Capacity Cycle time Inventory On-time delivery	Up 50% Down 50% Down 50% Increased to near 100%
Allied signal (Honeywell)/bendix IQ brake pads	Concept-to-shipment cycle time	Reduced from 18 months to 8 months
Hughes aircraft's missiles systems group/wave soldering operations	Quality/productivity	Improved 1,000%/improved 500%
General electric	Financial	\$2 billion in 1999
Motorola (1999)	Financial	\$15 billion over 11 years
Dow chemical/rail delivery project	Financial	Savings of \$2.45 million in capital expenditures
DuPont/Yerkes plant in New York (2000)	Financial	Savings of more than \$25 million
Telefonica de espana (2001)	Financial	Savings and increases in revenue 30 million euro in the first 10 months
Texas instruments	Financial	\$ 600 million
Johnson and Johnson	Financial	\$ 500 million
Honeywell	Financial	\$1.2 billion
Bank of America (BOA)		10.4% increase in customer satisfaction and 24% decrease in customer problems
American Express		Improve external vendor processes, and eliminate non-received renewal credit cards
The radiology film library at the University of Texas MD Anderson Cancer Center		improved service activities greatly
University of Texas MD Anderson Cancer Center outpatient CT exam lab		Patient preparation times were reduced from 45 min to less than 5 min in many cases and there was a 45% increase in examinations with no additional machines or shifts

Table 1 – Reported Benefits and Savings from the Implementation of Six Sigma (source: Kwak, Y.H. and Anbari, F.T. (2006))

Lean Six Sigma and Six Sigma are classified as process improvement programmes, which include “process re-engineering, theory constraints and total productive maintenance” (Shah, et al. 2008:6680). This concept dates back to the beginning of the 20th century (Taylor, 1911) and the decisive work of Ohno (1978), Shingo (1981), Deming (1986) and Shah (2006). Thus it can be used in all the industries

Lean Six Sigma and Six Sigma have been tested in manufacturing (Shah et al. 2008; Schroeder et al. 2007; Kumar et al. 2006; Kwak and Anbari 2006; Lee and Choi 2006; Mahesh et al. 2006; Antony et al. 2005; Linderman et al. 2005); Construction (Heon et al. 2008; Kwak and Anbari 2006; Pheng et al. 2004); Service industry (Chakrabarty and Tan 2007; Oke 2007; Schroeder et al. 2007; Antony et al. 2006); Automotive (Antony et al. 2005); Healthcare (Kwak and Anbari 2006); Public Sector (Furterer and Elshennawy 2005)

Whilst Six Sigma has been implemented in large and multinational organizations SMEs have experienced some resistance to implement it perhaps due to the costs involved. It appears however, and as stated by Antony et al. (2005) large organizations have left no choice on the SMEs to consider the introduction of Six Sigma strategy in order to provide high quality products and highly capable businesses processes. Harry and Crawford (2004) demonstrated the benefits of implementing white belts on SMES and creating value for customers with a savings of about \$300,000 per year. Wilson (2004) identified the following advantages for small-businesses embarking on Six Sigma initiative: (a) stronger, more intimate relationships with customers, (b) fewer number of sites; (c) fewer layers in the management hierarchy; (d) faster and effective internal communication; and (e) strong owner influence.

Lean production, evolved from the Toyota Production System (TPS) and its purpose was to improve firm performance through elimination of waste. Lean production can be defined as a “philosophy, as a set of principles and as bundles of practices” (Shan et al. 2008:6681). Womack et al. (1996) defined lean production in terms of production philosophy that eliminates waste from a product’s value-stream and shortens the time between order placement and product delivery.

Six Sigma range from “a business philosophy for improvement to a collection of statistical tools and metrics” (Shan et al. 2008:6681). Schroeder et al. 2007 identified six concepts which relate to Six Sigma: (a) top management leadership, (b) customer requirements, (c) focus on financial and non-financial results, (d) structured method of process improvement, (e) strategic process selection and (f) full-time specialist. Six Sigma concentrates on performance target of operating within 3.4 defects per million opportunities.

THE DIFFERENCE BETWEEN LEAN AND SIX SIGMA

“Lean practices and techniques focus on streamlining processes, whereas Six Sigma practices and techniques help identify and eliminate root causes of problems” (Evans and Lindsay, 2005:498). Thus lean places emphasis on process flow while Six Sigma concentrates on process defects (George, 2003:6). Lean is a bottom up approach whereas Six Sigma plays a “more active role by selecting improvement projects based on financial and strategic goals” (Shan, et al. 2008:6683).

Obstacles and challenges of the Six Sigma methodology have varied from simply repackaging traditional principles and techniques (Catherwood, 2002), to not being the panacea to answer to all business issues (Kwak and Anbari, 2006). Of course the cost to implement such a process whilst they are less than the savings in harsh economic times it is difficult to convince that it is worth spending a few hundred thousand to save a million.

Whilst Six Sigma appears to be winning ground in developed economies and academic literature is steadily increasing on the topic non existent research appears on its use in small economies. The researchers decided to select and test the use of Six Sigma in Cyprus for the following reasons.

Firstly, Cyprus based on the World Bank Report (2007) is one of 45 small economies. Secondly it has a large percentage of SMEs (99.9% of its businesses are SMEs) [www.mof.gov.cy/mof/cystat/statistics.nsf]. Cypriot Micro enterprises within SMEs (those employing less than 10 persons) are 94.1%, whilst Medium size enterprises (those employing between 10-49 people) account for 5% and only .8% are Large SMEs (those employing 50-249) [source: www.mof.gov.cy]. Thirdly according to the Minister of Finance on the 9th of July 2009 Cyprus is one of two countries in the EU 27 with a positive economic growth in the first half of 2009 (Minister of Finance on 9 July 2009)

Having therefore identified the country the research was to be carried out, the authors decided to concentrate on SMEs and on the main industries the country’s economy relied upon which are: Hospitality and Tourism, Construction, Banking and Finance, Healthcare and Automotive and Transport.

METHODOLOGY

Given the size of the country and of the companies as well as the economic crisis being faced at the time of the research it was decided that the research questions are as follows:

1. In what process areas can Six Sigma be implemented in a small economy?

Is there a difference in the processes identified depending on the industry?

To enable the researchers to carry out the present study, an academic and a Six Sigma Black Belt were involved throughout the research, funding was provided by the Research Promotion Foundation of Cyprus. Having conducted an extensive literature review a generic questionnaire was developed. The researchers decided to use the Common Assessment Framework (CAF) (2006) as a basis to identify the problematic process areas. The reason CAF and not another model was used was because this particular framework is widely used by many quality officers in Cyprus. Having therefore adapted the CAF model on the needs and characteristics of a small economy the questionnaire was pilot tested on five quality managers within each of the industries. Once the questionnaire was approved by the team, it was mailed to 1000 Cypriot companies selected from the Cyprus Chamber of Commerce database. The questionnaires were mailed to the quality officer within each organisation. As the database included all the members of the Cyprus Chamber of Commerce, there was no way of knowing which one of them were SMEs or not. Therefore, respondents were asked to state the number of employees and turnover or to only reply if they fulfilled the SME criteria. Over one hundred respondents replied that due to the economic crisis and that there were concerns of survivorship or staff redundancies, they were not interested in participating in this research. Additionally, many questionnaires were returned back to us because the companies had closed down.

The useful responses (ignoring incomplete questionnaires, as well as, respondents that did not qualify under the European Commission's SME definition) were 50. Following the low response rate, it was decided to have a follow up action to the quantitative study and carry out a qualitative study as well. In the qualitative study we invited CEOs/MDs and Quality Managers of leading organizations and Government Regulators who have an influence on the market of SMEs from the five industry sectors running five different focus group meetings. This gave us an opportunity, to obtain tangible information from these individuals by operating outside the box.

	N	%
<i>Position of the Respondent</i>		
• Board Member	6	9
• Managing Director	17	35
• Accountant	7	15
• Manager	20	41
<i>Type of Organization</i>		
• Automotive and Transport	5	10
• Banking and Insurance	6	12
• Construction	10	20
• Healthcare	9	18
• Hospitality	20	40
<i>Legal status of the Organisation</i>		
• Private company	41	84
• Public and listed on the stock exchange	9	16
<i>Number of employees</i>		
• <10	7	14
• 10-49	19	38
• 50-249	24	48
• 250+		
<i>Management Systems already implemented (multiple response question)</i>		
ISO 9001 quality Management Systems	24	40
ISO 1400 Environmental Management Systems	6	10
ISO 2200 Food Safety Management Systems Six Sigma	9	15
EFQM European Foundation for Quality Management	1	2
ISO 18000 Health and Safety Systems	2	3
Other	6	10

	12	20
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Table 2 – Demographics of Quantitative Research

B1 Leadership	1 %	2 %	3 %
1. We provide direction for the organization in developing its mission, vision and value, by:			
a. Formulating and developing the mission (what our goals are) and the vision (where we want to go) of the organization by involving relevant stakeholders and employees.	75	15	10
b. Translating the mission and vision into strategic (long-and medium-term) and operational (real and short-term) objectives and actions.	78	10	12
c. Creating conditions for effective communication of its mission and vision by ensuring a wider communication of their values, strategic and operational objectives in the organization and to other stakeholders.	76	12	12
d. Periodically reviewing the mission, vision and values to reflect changes in the organization's external environment.	64	19	17
2. We develop and implement a system for the management of our organization's, performance and change, by:			
a. Developing processes and organizational structures in accordance with strategy, planning, needs and expectations of stakeholders, using available technologies.	75	10	15
b. Defining appropriate management forms (levels, functions, responsibilities and competencies) and ensuring a system exists for managing such processes.	76	7	17
c. Giving direction on output and outcome targets balancing the needs and expectations of different stakeholders.	49	29	22
d. Communicating initiatives and reasons for changes to employees and relevant stakeholders.	73	15	12
3. We motivate and support people in the organization and act as role model, by:			
a. Leading by example, thus acting in accordance with established objectives and values.	80	10	10
b. Demonstrating personal willingness of leaders/managers to accept change through constructive feedback.	83	10	7
c. Promoting a culture of innovation and improvement by encouraging and supporting employees to make suggestions and be proactive in their daily work.	81	7	12
d. Respecting and addressing employees' individual needs and personal circumstances.	93	2	5
4. We manage the relations with politicians and other stakeholders in order to ensure shared responsibility, by:			
a. Developing and maintaining partnerships and networks with important stakeholders (Non-Government Organizations (NGOs), interest groups, industry and other public authorities).	56	22	22
b. Seeking public awareness, reputation and recognition of the organization and its services.	73	17	10
c. Developing a concept of marketing (product and service targeted) and its communication in relation to stakeholders.	68	22	10
B2 Strategy and Planning	1 %	2 %	3 %
1. We gather information relating to the present and future needs of stakeholders, by:			
a. Identifying all relevant stakeholders.	71	17	12
b. Systematically gathering and analyzing information about stakeholders, their needs and expectations.	54	34	12
c. Systematically analyzing internal strengths and weaknesses (e.g. using methodologies such as, Total Quality Management (TQM), Common Assessment Framework (CAF), European Foundation of Quality Management (EFQM) and Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis).	39	27	34
2. We develop review and update strategy and planning, taking into account the needs of stakeholders and available resources, by:			
a. Developing and applying methods to monitor, measure and/or evaluate the performance of the organization at all levels ensuring the monitoring of the strategy's implementation.	70	15	15
b. Systematically reviewing risks and opportunities (e.g. SWOT analysis) and identifying critical success factors by regularly assessing these factors in the organization's environment (including political changes).	58	17	25
c. Balancing tasks and resources, long and short term pressures and stakeholder requirements.	51	29	20
d. Assessing the need to reorganize and improve strategies and methods of planning.	61	22	17

3. We implement strategy and planning in the whole organization, by:			
a. Translating strategic and operational objectives of the organization into relevant plans and tasks for departmental units and individuals within the organization.	53	32	15
4. We plan, implement and review modernization and innovation, by:			
a. Integrating tools and measures (e.g. input → process → output measurement or the use of TQM principles).	48	22	30
b. Ensuring the availability of the necessary resources to implement the planned changes.	70	13	17
B3 People			
1. We plan, manage and improve human resources transparently with regard to strategy and planning, by:			
a. Regularly analyzing current and future human resource needs, taking into account the needs and expectations of stakeholders.	73	12	15
b. Ensuring HR capability (recruitment, allocation, and development) is available to achieve and balance tasks and responsibilities.	73	10	17
c. Ensuring good environmental working conditions throughout the organization including taking care of health and safety requirements.	98	0	2
d. Ensuring that conditions are conducive towards achieving a reasonable work-life balance for employees.	90	5	5
2. We identify, develop and use competencies of employees, aligning individual and organizational goals, by:			
a. Identifying current competencies at the individual and organizational level in terms of knowledge, skills and attitudes.	86	12	2
b. Developing and agreeing on personal training and development plans for all employees with a special emphasis on managerial, leadership, and abilities to deal with diverse customers and partners.	75	15	10
c. Planning of training activities and developing communication techniques in the areas of risk and conflict of interest management.	63	15	22
3. We involve employees in open dialogue and empowerment, by:			
a. Promoting a culture of open communication and dialogue and encouraging team work.	80	12	8
b. Involving employees and their representatives in the development of plans, strategies, goals the design of processes and in the identification and implementation of improvement activities.	61	22	17
c. Regularly conducting staff surveys including publishing results/summaries/interpretations.	35	27	38
B4 Partnerships and Resources			
1. We develop and implement key partnership relations, by:			
Identifying potential strategic partners (e.g. purchaser-provider, co-production) and establishing an appropriate partnership agreement taking into account the nature of the relationship.	69	22	9
2. We develop and implement partnerships with customers, by:			
a. Ensuring transparency of the organization as well as its decisions and development.	51	15	34
b. Being open to ideas, suggestions and complaints by customers, and developing as well as using appropriate mechanisms to collect them (e.g. by means of surveys, consultation groups, questionnaires, complaints boxes, opinion polls, etc.).	76	12	12
3. We manage finances, by:			
a. Ensuring the cost efficient management of financial resources.	90	5	5
b. Introducing innovative systems for budgetary and cost planning (e.g. multi-annual budgets, programme of project budgets).	63	15	22
c. Ensuring investment decisions and financial controls are based on cost/benefit-analysis.	78	15	7
4. We manage information and knowledge, by:			
a. Developing systems for managing, storing and assessing information and knowledge within the organization in accordance with strategic and operational objectives.	83	12	5
b. Developing internal channels to cascade such information throughout the organization to ensure that all employees have access to the information and knowledge relevant to their tasks and objectives.	63	27	10
5. We manage technology, by:			
Implementing an integrated policy of technology management in accordance with the strategic and operational objectives of the organization	76	12	12
6. We manage amenities, by:			
a. Ensuring a safe, cost efficient and ergonomically suitable use of office facilities based on strategic and operational objectives; accessibility by public transport; needs of the employees; local culture and	81	7	12

physical constraints (e.g. open plan offices vs. individual offices, mobile offices) and technical equipment (e.g. number of computers, photocopiers and internet access by service type).			
b. Ensuring an efficient, cost effective and sustainable use of transport and energy resources.	66	15	19
c. Ensuring an efficient, cost effective, planned and sustainable maintenance of buildings, offices and equipment.	87	8	5
B5 Processes	<u>1</u> %	<u>2</u> %	<u>3</u> %
1. We identify, design, manage and improve processes on an ongoing basis, by:			
a. Identifying, describing and documenting key processes on an ongoing basis.	76	17	7
b. Identifying process owners and assigning responsibilities to them.	78	12	10
c. Allocating resources to processes based on the relative importance of their contribution to the strategic aims of the organization.	68	27	5
d. Improving processes on the basis of their measured efficiency, effectiveness and results (outputs), in conjunction with relevant stakeholders.	68	20	12
e. Analyzing and evaluating key processes, risks and critical success factors taking the objectives of the organization and its changing environment into consideration.	71	17	12
f. Identifying, designing and implementing process changes leading to one-stop-principle services.	48	40	12
g. Measuring and reviewing the effectiveness of process changes and carrying out benchmarking to drive improvement.	63	27	10
2. We develop and deliver customer-oriented services and products, by:			
a. Involving customers and other stakeholders in the development of quality standards for services, products and information for customers.	61	17	22
b. Developing clear guidelines and regulations using plain language.	75	15	10
c. Developing sound response query handling and complaint management systems and procedures.	66	19	15
3. We innovate processes involving customers, by:			
a. Providing the resources necessary for process innovations.	49	24	27
b. Actively identifying, analyzing and overcoming obstacles to innovation.	61	27	12
4. Our products and services are produced, delivered and serviced, by:			
Communicating, marketing and selling products and services to existing and potential customers.	83	10	7
5. Our customer relationships are managed and enhanced, by:			
a. Handling feedback received from day-to-day contacts, including complaints.	83	12	5
b. Following up on sales, servicing and other contacts in order to determine levels of satisfaction with products, services and other customer sales and servicing processes.	83	12	5
c. Using regular surveys, other forms of structured data gathering and data gathered during day-to-day customer contact in order to determine and enhance customer relationship satisfaction levels.	54	22	24
B6 Customer-oriented results			
1. Customer satisfaction measurements are carried out on:			
Products and services (e.g. quality, reliability, compliance with standards, processing time, value of advice given to customers).	73	12	15
2. Customer-oriented indicators are measured through:			
Employee training in relation to the effective handling of customer relationships (e.g. professionalism and friendly communication with, and treatment of customers).	66	17	17
B7 People results			
1. People's satisfaction and motivation is measured by:			
The level of employees' involvement in the organization and its mission.	63	20	17
2. Indicators are utilized to:			
a. Measure satisfaction level of employees (e.g. levels of absenteeism or sickness, rates of staff turnover, number of complaints).	54	24	22
b. Measure level of performance by employees (e.g. measures of productivity, results of evaluations).	63	15	22
B8 Society results			
1. We measure our stakeholders' perceptions by:			
General public's awareness of the impact of how the organization's performance affects the quality of our customers' lives.	52	27	21
2. We identify society's perceptions on how our organisation's			

<i>Programmes protect customers and employees from exposure to possible health risks and accidents.</i>	68	15	17
B9 Key performance results			
1.External results: outputs and outcomes of goals are measured in terms of:			
<i>a. The extent to which the goals are achieved in terms of output (delivery of products or services).</i>	86	12	2
<i>b. Cost efficiency (outputs achieved at the lowest possible cost).</i>	81	7	12
<i>c. Cost effectiveness (outputs achieved at the lowest possible cost).</i>	72	13	15
2.Internal results ,are measured in terms of:			
<i>The degree of involvement of all stakeholders in the organisations.</i>	49	22	29
<i>Process performance.</i>	76	14	10

Table 3 – Areas of Primary Concern - (1=agree; 2=do not know; 3=disagree)

Utilising the information gathered from the qualitative and quantitative study, the major problem areas identified per industry sector are listed in Table 4. For instance as indicated in Table 3 above, leadership issues appear to be of less importance to the Banking and Automotive and Transport Industries. It was found in the focus groups that there are some issues in the leadership field that need to be addressed unlike the other three industries. Putting therefore the findings of both studies the research team has identified the problem areas needing to be addressed per industry.

1. CONSTRUCTION

B2 Strategy and Planning
<ul style="list-style-type: none"> Developing and applying methods to monitor, measure and/or evaluate the performance of the organization at all levels ensuring the monitoring of the strategy's implementation.
B5 Processes
<ul style="list-style-type: none"> Subcontractor Management (no standards) Risk Management Developing sound response query handling and complaint management systems and procedures. Using regular surveys, other forms of structured data gathering and data gathered during day-to-day customer contact in order to determine and enhance customer relationship satisfaction levels
B9 Key Performance Results
<ul style="list-style-type: none"> Extent to which the goals are achieved in terms of output (delivery of products or services). Cost efficiency (outputs achieved at the lowest possible cost). Process performance.

2. HOSPITALITY

B2 Strategy and Planning
<ul style="list-style-type: none"> Systematically gathering and analyzing information about stakeholders, their needs and expectations.
B5 Processes
<ul style="list-style-type: none"> Risk Management Demand Capacity Management Measurement of Operational Cost
B6 Customer-Oriented Results
<ul style="list-style-type: none"> Customer Satisfaction Measurement

3. AUTOMOBILE/TRANSPORT

B1 Leadership
<ul style="list-style-type: none"> Promoting a culture of innovation and improvement by encouraging and supporting employees to make suggestions and be proactive in their daily work.
B2 Strategy and Planning
<ul style="list-style-type: none"> Systematically gathering and analyzing information about stakeholders, their needs and expectations. Ensuring the availability of the necessary resources to implement the planned changes.
B3 People
<ul style="list-style-type: none"> Identifying current competencies at the individual and organizational level in terms of knowledge, skills and attitudes. Promoting a culture of open communication and dialogue and encouraging team work. Involving employees and their representatives in the development of plans, strategies, goals the design of processes and in the identification and implementation of improvement activities.
B4 Partnerships and Resources
<ul style="list-style-type: none"> Partnership management Supplier management Information technology management
B5 Processes
<ul style="list-style-type: none"> Identifying, describing and documenting key processes on an ongoing basis. Allocating resources to processes based on the relative importance of their contribution to the strategic aims of the organization. Improving processes on the basis of their measured efficiency, effectiveness and results (outputs), in conjunction with relevant stakeholders.
B6 Customer-Oriented Results
<ul style="list-style-type: none"> Customer service management
B7 People Results
<ul style="list-style-type: none"> Measure satisfaction level of employees (e.g. levels of absenteeism or sickness, rates of staff turnover, number

<i>of complaints).</i>
B9 Key Performance Results
<ul style="list-style-type: none"> • <i>The degree of involvement of all stakeholders in the organization.</i> • <i>Process performance</i>

4. HEALTHCARE

B2 Strategy and Planning
<ul style="list-style-type: none"> • <i>Systematically analyzing internal strengths and weaknesses (e.g. using methodologies such as, Total Quality Management (TQM), Common Assessment Framework (CAF). European Foundation of Quality Management (EFQM) and Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis).</i> • <i>Balancing tasks and resources, long and short term pressures and stakeholder requirements.</i>
B4 Partnerships and Resources
<ul style="list-style-type: none"> • <i>Technology management</i>
B5 Processes
<ul style="list-style-type: none"> • <i>Identifying, describing and documenting key processes on an ongoing basis.</i> • <i>Measuring and reviewing the effectiveness of process changes and carrying out benchmarking to drive improvement.</i> • <i>Providing the resources necessary for process innovations.</i> • <i>Using regular surveys, other forms of structured data gathering and data gathered during day-to-day customer contact in order to determine and enhance customer relationship satisfaction levels.</i> • <i>Risk Management</i> • <i>Risk assessment</i> • <i>Financial management</i> • <i>Inventory management</i> • <i>Waste management</i> • <i>Subscription</i>
B6 Customer-Oriented Results
<ul style="list-style-type: none"> • <i>Customer measurement</i>

5. BANKING/FINANCE/INSURANCE

B1 Leadership
<ul style="list-style-type: none"> • <i>Creating conditions for effective communication of its mission and vision by ensuring a wider communication of their values, strategic and operational objectives in the organization and to other stakeholders.</i> • <i>Communicating initiatives and reasons for changes to employees and relevant stakeholders.</i> • <i>Promoting a culture of innovation and improvement by encouraging and supporting employees to make suggestions and be proactive in their daily work.</i>
B2 Strategy and Planning
<ul style="list-style-type: none"> • <i>Systematically reviewing risks and opportunities (e.g. SWOT analysis) and identifying critical success factors by regularly assessing these factors in the organization's environment (including political changes).</i> • <i>Strategy execution monitoring</i> • <i>Strategic identification of critical projects for implementation</i> • <i>Project improvement implementation</i>
B3 People
<ul style="list-style-type: none"> • <i>Regularly analyzing current and future human resource needs, taking into account the needs and expectations of stakeholders.</i> • <i>Identifying current competencies at the individual and organizational level in terms of knowledge, skills and attitudes.</i> • <i>Planning of training activities and developing communication techniques in the areas of risk and conflict of interest management.</i> • <i>Involving employees and their representatives in the development of plans, strategies, goals the design of processes and in the identification and implementation of improvement activities.</i> • <i>Human resources</i> • <i>Performance measurement</i> • <i>Identification of training needs</i> • <i>Training</i>
B4 Partnerships and Resources
<ul style="list-style-type: none"> • <i>Ensuring a safe, cost efficient and ergonomically suitable use of office facilities based on strategic and</i>

<i>operational objectives; accessibility by public transport; needs of the employees; local culture and physical constraints (e.g. open plan offices vs. individual offices, mobile offices) and technical equipment (e.g. number of computers, photocopiers and internet access by service type).</i>
B5 Processes
<ul style="list-style-type: none"> • <i>Developing clear guidelines and regulations using plain language.</i> • <i>Providing the resources necessary for process innovations.</i> • <i>Handling feedback received from day-to-day contacts, including complaints.</i> • <i>Following up on sales, servicing and other contacts in order to determine levels of satisfaction with products, services and other customer sales and servicing processes.</i> • <i>New product development management</i>
B6 Customer-Oriented Results
<ul style="list-style-type: none"> • <i>The extend of employee training in relation to the effective handling of customer relationships (e.g. professionalism and friendly communication with, and treatment of customers).</i>
B7 People Results
<ul style="list-style-type: none"> • <i>The level of employees' involvement in the organization and its mission.</i> • <i>Measure level of performance by employees (e.g. measures of productivity, results of evaluations).</i>
B8 Society Results
<ul style="list-style-type: none"> • <i>General public's awareness of the impact of how the organization's performance affects the quality of our customers' lives.</i>

Table 4 – Problem Areas Validation

DISCUSSION ON FINDINGS

Responding to the two research questions posed earlier, i.e.

1. In what process areas can Six Sigma be implemented in a small economy?
2. Is there a difference in the processes identified depending on the industry?

The participants of the focus groups and respondents of the questionnaire have been hesitant to agree that six sigma can be used during economic crisis period and more importantly the benefits to be derived if used in a small economy, like Cyprus. There was however, an interest for some to take up the free of charge six month pilot period offered since it will not have a financial burden on them.

More specifically, regarding the two research questions the findings from both the qualitative and quantitative study do illustrate that problem areas identified by industry vary. Having therefore identified the problem

Hospitality and Tourism

As a holiday resort, Cyprus depends heavily on tourism and other related services. However in the last two to three years due to exogenous factors this industry has been affected adversely. These exogenous factors are: cheap near by destinations, the international economic crisis, the swine flu and finally due to its geographical location it is frequently found to be close to political unrests. Six sigma can help to sooth out some of these issues now that the problem areas have been identified. In most cases, the areas which are often highlighted are poor service delivery, high costs, customer dissatisfaction, staff training etc. From the present study only the following issues (see Table 4) were identified by the organisations: (a) Strategy and Planning; (b) Processes; and (c) Customer-Oriented Results.

Banking and Insurance

Over the past couple of years, this sector is pressured to reduce costs, improve their operational cycle, reduce risks, and be competitive. This industry has been heavily affected from the local conditions due to international interest roles, the downturn of the construction industry, the effects that tourism had on the island and the spending habits of people on luxury items such as cars, etc. The present research identified the following issues (Table 4) which need to be addressed by Six Sigma in the banking and insurance industry:

(a) Leadership; (b) Strategy and Planning; (c) People; (d) Partnerships and Resources; (e) Processes; (f) Customer-Oriented Results; (g) People Results and (h) Society Results.

Construction and Real Estate

Very little research has been conducted on setting definite quantitative goals for performance improvement while considering the defect rate involved in construction operations or external influences which affect their project performance or operational integrity. Whilst the construction industry in Cyprus has been booming, during the international economic crisis the same industry has been affected the most after the hospitality and tourism sector. Only three problem areas have been identified needing the attention of six Sigma. These are (a) Strategy and Planning; (b) Processes; and (c) Key Performance Results.

Automotive and Transport

For years, Six Sigma was viewed simply as a process improvement tool (like TQM) to help companies improve their processes and operations, reduce product defects and a methodology applicable to the manufacturing industry. In small economies for this particular industry we can generalise by saying that it does not including the manufacturing of automobiles but only the retail and maintenance component. The automotive industry has been affected very much because of the global crisis and local SMEs were not immune to those effects. Even so, the number of respondents were surprisingly better than anticipated and the following problem areas (Table 4) were identified: (a) Leadership; (b) Strategy and Planning; (c) People; (d) Partnerships and Resources; (e) Processes; (f) Customer-Oriented Results; (g) People Results and (h) Key Performance Results.

Healthcare

Despite the fact that generally Six Sigma principles and the healthcare sector are very well matched because of the healthcare nature of zero tolerance for mistakes and potential for reducing medical errors, the present research has shown that these organizations would like to use Six Sigma to address the following areas of concern (Table 3): (a) Strategy and Planning; (b) Partnerships and Resources; (c) Processes.

CONCLUSION

Despite the limitations of the study, ie that only 50 companies participated in the study, the fact that results were rechecked with the aid of qualitative research it is argued that this exploratory study will provide room for further research in the field in small economies. As illustrated above the type of industries which participated in this study included Hospitality and Tourism (40%), Banking and Finance (12%), Construction and Real Estate (20%), Automotive and Transport (10%) and Healthcare (18%). Out of the 50 companies that responded, 7 were micro (<10 employees), 19 were medium (10-49 employees) and 24 were Big SMEs (50-249). Thus far only three organisations within the sample of SMEs got involved in a Six Sigma programme, two of them undertaking such assignment under the auspices and assistance of their international principals or Head Office, the third organisation trained their top management in the Six Sigma concept and techniques.

However, in implementing Six Sigma in SMEs, its penetration into the workforce and the task of gaining commitment by management and employees would depend on whether the organisation had prior experience with quality management systems, namely ISO 9000, Balanced Scorecard, Total Quality Management (TQM), European Foundation for Quality Management (EFQM) or other quality initiatives. In addition, it must be emphasized that the commitment of the top management is essential to progress and goal to attain Six Sigma projects.

In conclusion it can be said that whilst Six Sigma can be implemented by SMEs in a small economy there will be lack of commitment to do so during harsh economic crisis since immediate benefits cannot be achieved. Six sigma is a long term investment that needs to be made. Regarding the second research question whilst it was found that each industry has its own problem areas, strategy and planning is a

problem area identified for all five sectors. In fact in small economies, where most businesses are not only SMEs but family businesses it is hard to have the vision and appropriate people to form strategic plans. Further research is suggested in this field.

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AN EXPLORATION OF LOYALTY DETERMINANTS IN GREEK WINE VARIETIES

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Purpose: This paper aims to provide a deeper understanding of the market structure of red and white wines from Greek wine varieties and measure loyalty behaviour of frequent wine buyers in Greece.

Design/methodology: The study concerned measuring brand performance and loyalty of 4 different Greek wine varieties. Based on stated preference data, basic brand performance measures are estimated through Juster purchase probabilities of brand choice. To measure loyalty behaviour, the polarisation index ϕ (phi) is used as a measure to model loyalty both at the brand name and specific wine attributes and attribute-levels.

Findings: The findings of the present study point to the conclusion that each one of the four Greek wine varieties under examination exhibits its own market structure and loyalty profile, whereas price, quality certification and winemaker's size seem to function as loyalty stimulators more effectively for white wines. Moreover, it is also clear that the origin or type of the wine variety *per se* does not constitute a particularly important loyalty component in the wines' marketing mix.

Research limitations/implications: The wine category has always been one of the most challenging product categories to investigate. Many attributes contribute to building loyalty that is often hard to delineate and take into account each. Moreover, the present methodology is based on stated preference data, whereas revealed preference data could be the ideal for applying the specific methodology.

Originality/value: Few studies, if any, have explored the issue of loyalty using the present methodological approach in the case of wine.

INTRODUCTION

Wine is often characterised as a difficult and confusing product for consumers. In addition, the wine market is much diverse and competitive, with an enormous number of niche brands, making consumer choice even more complex. When consumers are overloaded with information that exceeds their processing limits, they tend to simplify their decision-making based on heuristics (Bettman et al., 1998). In the case of wine, such heuristics can often be extrinsic quality cues (e.g. brand, price, variety, VQPRD certification, etc.). Certain past studies have explored the importance of such cues on consumers' wine choice (e.g. Fotopoulos et al., 2003; Jarvis et al., 2007).

However, less is known on whether consumers remain loyal within a specific wine category, and moreover what influences their loyalty behaviour mostly. Loyalty has mostly been viewed from the brand level. However, there is the possibility to account for loyalty broken down into product attributes, but such an approach has rarely been measured, analysed or discussed, apart from a few recent exceptions (Jarvis et al., 2007; Singh et al., 2008). Singh et al. (2008) suggested that measuring loyalty to product attributes is urgently needed, since manufacturers, retailers and marketers generally seem to have little empirical knowledge on this issue. Furthermore, a better understanding of which attributes are drivers of loyalty will provide further input for the design and implementation of loyalty strategies.

On this basis, the aim of this paper is to provide a deeper understanding of the market structure of red and white wines from Greek wine varieties and measure loyalty behaviour of frequent wine buyers. Basic brand performance measures are estimated through Juster-scale purchase probabilities of brand choice. The Dirichlet-NBD model and the polarisation index ϕ (phi) are used to model loyalty both at the a) brand name; and b) wine attributes level. The wine attributes and their respective levels used for the purposes of this study are: a) price (low, medium, high tiers), b) winemaker (small, medium, large corporate size), and c) quality certification (VQPRD wine or not).

The paper develops as follows: in the Material and Method section a brief description of the concept of behavioural loyalty and its measurement, as well as a detailed description of the research design, the data collection procedure and the sample(s) are included; in the Results section the main empirical outcomes of the research explained in relation to its aims; finally, in the Discussion and Conclusion section the practical implications of the current research findings are highlighted.

MATERIAL AND METHOD

Measuring loyalty

Brand loyalty is nowadays a well established concept. Copeland (1923) first defined loyalty as “an extreme attitude towards a product which might have a special effect on buyer behaviour”. This definition is considered as one of the most cogent descriptions of loyalty ever proposed. It took 50 years of research until researchers suggested that loyalty is a composite measure, comprising behavioural and attitudinal loyalty (Day, 1969; Dick and Basu, 1994; Jacoby and Chestnut, 1978).

Behavioural loyalty has been suggested to be measured at a product’s brand level with the use of various parameters commonly known as Brand Performance Measures (BPMs). Typical BPMs are market share, penetration, and purchase frequency. Certain BPMs can be used as inputs in fitting the Dirichlet model (Fader and Schmittlein, 1993; Bhattacharya, 1997). Models like this are often called zero-order models due to their assumption that each purchase is unrelated to the previous one (“as if random”). The Dirichlet model has been shown to provide useful benchmarks and offer a natural baseline for the repeat-purchase loyalty each brand enjoys (Ehrenberg et al., 2004; Goodhardt et al., 1984). Empirical regularities associated with the Dirichlet model have been widely tested and supported in marketing, and observed for over 30 years in a large number of product categories and across different countries in Europe, the USA, Asia and Australia (Ehrenberg et al., 2004; Uncles et al., 1995).

Brand performance measures are usually obtained from revealed preference data (e.g. scanner data, panel data). However, such data can be expensive and time-consuming to acquire and process and may not be readily available for certain product categories and markets (Uncles and Lee, 2006). An alternative approach for empirically estimating similar measures is by using the Juster-scale, according to which respondents are asked to rate the probability of purchasing selected brands within a product category in a future time purchasing period (“What are the chances that you, personally, will buy/purchase <brand j> in the next <period>?”). Answers to the previous question are provided in an 11-point probability scale ranging from 0 to 10, where 0 denotes “no chance, almost no chance (1 in 100)” and 10 denotes “certain, almost practically certain (99 in 100)”. The attraction of the Juster-scale is its use to develop observed estimators for a set of various brand performance measures which can further be used as inputs to fit the Dirichlet model (Wright et al., 2002). The Juster scale is preferred over other purchasing intention measures, since it has been proven to be more reliable and precise, constituting a direct means to estimate real purchasing behaviour (Wright and MacRae, 2007).

A measure stemming from the Dirichlet model used to model loyalty is the polarisation index ϕ that was initially proposed by Sabavala and Morisson (1977). Polarisation ϕ is estimated by the following equation: $\phi = 1/(1+S)$, where S is a parameter of the Dirichlet model (see Ehrenberg, 1988). Both indices (ϕ and S) capture changes in heterogeneity of consumer choice as purchase incidence changes. The primary benefit of ϕ is that it is easier to interpret, since it varies from zero to one, whereas S varies from zero to infinity. Values of ϕ close to zero indicate pure homogeneity in consumer choice, denoting high switching levels within a product category, where all buyers have the same propensity to buy individual brands. Values of ϕ close to one signify the existence of maximum heterogeneity, indicating high levels of loyalty in a product category within which each consumer buys only his/her favourite brand (Fader and Schmittlein, 1993; Stern and Hammond, 2004).

Study design

For the purposes of the study, brand performance on a set of 40 wine brands was investigated using the Juster-scale. The period for measuring the probability of purchase was set to four weeks. Four Greek wine varieties were chosen (two white varieties: "Asyrtiko" and "Mosxofilero"; and two red varieties: "Agiorgitiko" and "Xinomavro") and 10 known brand names were selected from each variety according to their retail sales and the attributes under examination (price, winemaker and certification), so to include a reasonable number of brands for each attribute. Thus, 12, 15 and 13 brands belonged to the low, medium and high price tiers respectively, 35 brands were VQPRD wines, and 12, 6 and 22 brands were produced by big, medium and large winemakers respectively. In order to simplify the selection of brands, no reference to vintage was made.

Each brand was presented as pictures to the participants to further stimulate brand recognition and increase realism. In addition, for each variety brands were shown to participants randomly to avoid any order bias effects. Finally, apart from the section with the Juster-scale, the questionnaire included:

a) Questions about wine purchasing frequency of respondents (replies varied from "once a week" to "at least once a month");

b) A measurement of attitudinal loyalty towards Greek wine varieties (2 items per variety: "I am committed to this <wine variety>" and "I am willing to pay a higher price for this <wine variety> over other <red/white wine varieties>", adapted from Chaudhuri and Holbrook, 2001). Answers were measured on 7-point, Likert agreement scales with end-points 1 = "totally disagree" to 7 = "totally agree";

c) A measurement of the importance of 10 wine purchasing criteria (e.g. "How important are the following criteria for your wine purchasing selection?"). Answers were measured on a 7-point, Likert importance scale with end-points 1 = "completely unimportant" to 7 = "absolutely important". The 10 criteria were: grape variety, price, winemaker's fame, vintage, prize won, quality certification, region of origin, brand name, label, and fermentation in barrel; and

d) A part aiming to describe participants' socio-demographic profile.

Sample

A web-based administered survey was undertaken in Greece during March 2009. Participants were selected according to their purchase of wine (at least one purchase a month), in order to ensure a minimum level of respondents' knowledge and involvement in wine purchasing. In total, 408 respondents participated in the survey, from which 205 answered questions referring to white varieties (N_W) and 203 to red varieties (N_R).

Table 1 presents descriptive and group comparison tests between the two samples. Both white and red wine samples are skewed towards relatively younger age groups, higher educational levels and higher income tiers, although the participation of male and female consumers is almost equal between the two samples. Moreover, the majority of consumers in both samples are married, with one or two children, live in large cities across the country and work in paid types of employment. Regarding the statistically significant differences between the two samples, more red wine consumers belong to the tertiary educational level and live in smaller cities, while less are in a paid type of employment compared to white wine consumers.

Table 3. Socio-demographics of wine type segments

	White wine (N ₁ =205)	Red wine (N ₂ =203)	χ^2	<i>p</i> -value
Gender				
Male	0.47	0.51	0.79	0.428
Female	0.53	0.49		
Marital status				
Married	0.52	0.47	2.37	0.305
Single	0.40	0.40		
Other	0.08	0.13		
Live in a place of...				
Less than 10.000 inhabit.	0.02	0.03	9.00	0.011
10.000 – 100.000 inhabit.	0.11	0.21		
More than 100.000 inhabit.	0.87	0.75		
Education				
Elementary school or less	0.05	0.01	18.98	0.000
Technical or high school	0.47	0.26		
University or higher	0.53	0.73		
Household size				
1	0.24	0.16	7.41	0.060
2	0.27	0.24		
3	0.16	0.24		
>3	0.33	0.36		
Age groups				
24 or less	0.06	0.12	8.33	0.080
25-34	0.38	0.37		
35-44	0.39	0.29		
45-54	0.12	0.15		
55 or more	0.04	0.06		
My net monthly income is ... than 1.000 €				
Less	0.16	0.15	3.05	0.217
Almost equal	0.42	0.35		
More	0.42	0.50		
Occupation				
In paid work	0.69	0.59	9.85	0.070
Self-employed	0.24	0.24		
Other	0.07	0.17		
I buy wine...				
More than once a week	0.12	0.06	8.19	0.042
Once a week	0.17	0.24		
2-3 times a month	0.32	0.35		
Once a month	0.40	0.35		

The sample was further segmented to frequent and non-frequent buyers according to their stated frequency of buying (red or white) wine. Frequent buyers are those reporting buying wine at least once a week, whereas non-frequent those at least once a month. Frequent buyers of red wine were 61 (NRF) and of white wine 59 (NWF). The socio-demographic profile of the frequent buyers and the statistically significant differences from the overall samples for white and red wines appear in Table 2. No statistically significant differences emerge between the two pairs of groups per wine category (white or red), apart from gender (i.e. more male consumers belonging to the frequent group) for both varieties and age groups for white wine buyers' sample (more frequent buyers in the 25-34 and above 55 age groups).

	<i>White wine</i> (<i>N_{WF}</i> =59)	χ^2	<i>p-value</i>	<i>Red wine</i> (<i>N_{RF}</i> =61)	χ^2	<i>p-value</i>
Gender						
Male	0.59	5.19	0.030	0.69	10.84	0.001
Female	0.41			0.31		
Marital status						
Married	0.47	3.08	0.214	0.43	0.82	0.662
Single	0.39			0.44		
Other	0.14			0.13		
Live in a place of...						
Less than 10.000 inhabit.	0.02	1.60	0.448	0.02	0.86	0.650
10.000 – 100.000 inhabit.	0.07			0.21		
More than 100.000 inhabit.	0.91			0.77		
Education						
Elementary school or less	0.00	0.71	0.703	0.00	1.01	0.603
Technical or high school	0.44			0.25		
University or higher	0.55			0.75		
Household size						
1	0.24	1.40	0.705	0.21	5.26	0.154
2	0.27			0.23		
3	0.20			0.30		
>3	0.29			0.26		
Age groups						
24 or less	0.07	21.51	0.000	0.10	1.88	0.757
25-34	0.44			0.38		
35-44	0.24			0.26		
45-54	0.12			0.18		
55 or more	0.14			0.08		
My net monthly income is ... than 1.000						
Less	0.22	3.98	0.137	0.16	0.66	0.718
Almost equal	0.32			0.38		
More	0.46			0.46		
Occupation						
In paid work	0.58	5.11	0.078	0.69	3.76	0.152
Self-employed	0.34			0.18		
Other	0.08			0.13		

Table 2 Socio-demographics of the frequent buyer group per wine type Note: Chi-squares report differences from the non-frequent buyer groups Procedure

Answers to the Juster-scale were used for the estimation of BPMs, such as penetration and purchase frequency at the brand level, as well as at the product category level, and market shares at the category level. Theoretical BPMs are relatively easy to estimate and are analytically described by Wright, Sharp and Sharp (2002). The above mentioned BPMs are those necessary to fit the Dirichlet model, from which additional measures of loyalty can be estimated. In addition, each brand was categorized based on the following attributes: a) price tier (low, medium, high); b) winemaker (small, medium, large corporate size); and c) certification (VQPRD wine or not) allowing analyses to be performed on an attribute level as well. Finally, the polarization index ϕ was estimated from the Dirichlet model allowing for modelling loyalty both at a

brand and attribute level. All analyses were performed in MATLAB and the DIRICHLET software (Kearns, 2000).

All analyses were conducted on the frequent buyer group. The main reasoning behind this decision was twofold. First, wine is by default a less frequent bought product thus exhibits low loyalty levels. Therefore, from a technical point of view, it is not sure, and not aim of the present paper, whether this was due to low purchase frequencies or variety seeking behaviour. Thus, the frequent buyer group was selected instead. Second, from a marketing point frequent buyers comprise the main target segment for wine companies. Therefore, it is interesting to explore loyalty behaviour of such buyers.

RESULTS

In relation to the criteria for wine purchasing included in the questionnaire, the five most important ones are region of origin, variety, price, winemaker's fame and quality certification (Table 3). Brand name did not receive high score indicating its low importance in the choice of wine. No significant differences were found between different types of wine apart from vintage and label on which the red wine consumers consider as more important.

	<i>All sample (N = 408)</i>	<i>White wine (N₁=205)</i>	<i>Red wine (N₂=203)</i>	<i>F (p-value)*</i>
<i>Region of origin</i>	5.31	5.26	5.36	0.56 (0.456)
<i>Variety</i>	5.30	5.18	5.42	3.23 (0.073)
<i>Price</i>	5.18	5.22	5.15	0.22 (0.641)
<i>Winemaker's fame</i>	5.12	5.11	5.13	0.01 (0.923)
<i>Quality certification</i>	5.04	5.08	5.00	0.24 (0.622)
<i>Brand name</i>	4.92	4.92	4.92	0.00 (0.996)
<i>Vintage</i>	4.84	4.66	5.02	5.94 (0.015)
<i>Barrel fermentation</i>	4.84	4.74	4.94	1.52 (0.219)
<i>Label</i>	4.31	4.02	4.59	11.48 (0.001)
<i>Medal</i>	4.13	4.03	4.23	1.44 (0.231)

Table 3 Importance of criteria in wine purchasing for whole sample and wine type segments* Differences between two groups of wine segments.

For the frequent buyer group the total penetration (% of category buyers) is 89% for Asyrtiko, 92% for Moshofilero, 87% for Xinomavro and 89% for Agiorgitiko (Table 4). Furthermore, the average purchasing frequency during the 4-week period under examination is 7.1 times for Asyrtiko, 6.3 times for Moshofilero, 5.8 times for Xinomavro and 6.8 times for Agiorgitiko. In other words, more than 90% of the frequent wine buyers purchase one of the 20 white wine brands at least once a month, while a frequent wine buyer buys any of the 20 white wine brands around 7 times a month. The relevant figures for the red wines are penetration 88% at average and average purchasing frequency around 6 times a month (4 weeks).

	<i>Penetration</i>	<i>Purchase Frequency</i>	ϕ	<i>Mean loyalty (attitudinal)</i> ^{1,2}
White wine				
<i>Asyrtiko</i>	0.89	7.1	0.05	3.23
<i>Moshofilero</i>	0.92	6.3	0.05	3.85
Red wine				
<i>Xinomavro</i>	0.87	5.8	0.04	3.26
<i>Agiorgitiko</i>	0.89	6.8	0.04	3.50

Table 4 Brand performance measures and polarisation indices for Greek varieties, frequent buyers. ¹ Likert agreement scales with end-points 1 = "totally disagree" to 7 = "totally agree". ² Cronbach alpha coefficients: *Asyrtiko* = 0.878; *Moshofilero* = 0.831; *Xinomavro* = 0.859; and *Agiorgitiko* = 0.781.

The third column of Table 4 indicates the polarisation indices ϕ for the four Greek wine varieties under investigation. It is clear that loyalty towards all varieties is very low, where as there are no differences between the two white and the two red wine varieties. The same low loyalty to all the wine varieties under examination is exhibited by the rather neutral attitudinal loyalty measures shown in the last column of Table 4.

Basic brand performance measures per wine variety for each wine attribute under examination are shown in Table 5. In terms of price, larger market shares appear in relation to the medium tier across all wine varieties, whereas comparably high market shares appear for the high price tier in the *Asyrtiko* variety (white wine) and the low price tier in the *Xinomavro* variety (red wine). Accordingly, higher penetrations and purchase frequencies appear in relation to the medium price tier across all wine varieties, but equally high measures appear for the high price tier in the white wine varieties and for the low price tier in the red wine varieties.

<i>Attribute</i>	<i>Market share</i>				<i>Penetration</i>				<i>Purchase Frequency</i>				ϕ			
	<i>As</i>	<i>M</i>	<i>X</i>	<i>Ag</i>	<i>As</i>	<i>M</i>	<i>X</i>	<i>Ag</i>	<i>As</i>	<i>M</i>	<i>X</i>	<i>Ag</i>	<i>As</i>	<i>M</i>	<i>X</i>	<i>Ag</i>
Price													0.06	0.05	0.03	0.03
<i>Low</i>	0.24	0.15	0.35	0.26	0.59	0.51	0.67	0.63	2.64	1.66	2.61	2.46	0.09	0.02	0.02	0.02
<i>Medium</i>	0.27	0.44	0.34	0.38	0.64	0.77	0.63	0.71	2.68	3.30	2.71	3.23	0.04	0.08	0.08	0.05
<i>High</i>	0.29	0.23	0.15	0.20	0.64	0.59	0.44	0.57	2.88	2.24	1.73	2.17	0.08	0.07	0.02	0.02
Certification													0.12	0.06	-	0.02
<i>VQPRD</i>	0.69	0.67	-*	0.73	0.82	0.86	-	0.85	5.30	4.51	-	5.17	0.21	0.12	-	0.02
<i>No VQPRD</i>	0.12	0.14	-	0.11	0.41	0.52	-	0.41	1.79	1.60	-	1.61	0.03	0.02	-	0.02
Winemaker													0.03	0.12	0.02	0.04
<i>Big</i>	0.32	0.36	0.59	0.21	0.61	0.72	0.79	0.56	3.37	2.90	3.82	2.31	0.22	0.08	0.02	0.05
<i>Medium</i>	0.16	-	-	0.29	0.50	-	-	0.65	1.97	-	-	2.67	0.02	-	-	0.02
<i>Small</i>	0.32	0.52	0.24	0.34	0.69	0.79	0.58	0.66	2.97	3.82	2.09	3.07	0.02	0.20	0.02	0.10

Table 5 Brand performance measures and polarisation indices for wine attributes, frequent buyers. Note: Key to wine varieties: *As*=*Asyrtiko*, *M*=*Moshofilero*, *X*=*Xinomavro*, *Ag*=*Agiorgitiko*. * All brands in the *Xinomavro* variety are *VQPRD* wines

In terms of certification, much larger market shares, penetrations and purchase frequencies emerge for the *VQPRD* wines than the non-certified ones, across all white or red varieties. Furthermore, in relation to the corporate size of the winemaker the results seem to be variety-specific, since market share, penetration and purchase frequency are usually higher for the big winemakers in relation to *Xinomavro* (red) wine, where as the relevant measures for *Moshofilero* (white) and *Agiorgitiko* (red) wines are usually higher for small winemakers. For *Asyrtiko* (white) wines, both big and small winemakers seem to acquire equally large market shares and penetrations. However, the differences among varieties in market share, penetration and

purchase frequency in relation to the size of the winemaker are not usually too large, especially in relation to the comparison between big and small winemakers.

The fourth column of Table 5 indicates the polarisation indices ϕ for the wine varieties under investigation per attribute and attribute-level. It is clear that loyalty to price, as well as to all price tiers is very low, especially for red varieties. Moreover, loyalty to certification is considerably higher for VQPRD wines in white wines and especially the Asyrtiko variety. Finally, loyalty to the size of the winemaker is also considerably higher for the white wine varieties; in particular, loyalty to big winemakers is high for Asyrtiko wines, and loyalty to small winemakers is high for Moshofilero wines. However, substantial loyalty appears in relation to small winemakers also for Agiorgitiko (red) wines.

DISCUSSION

Although the nature of the data collection procedure followed in the present survey does not allow for wide generalisations, the socio-demographic profile of the two samples indicates that younger, more educated, urban consumers constitute the most typical wine buyers. Moreover, it is worth noting that the main discriminating characteristic between white and red wine buyers is the educational level, with red wine being a more preferable choice of the more educated consumers than white wine.

However, the general convergence of the socio-demographic profiles of both white and red wine buyers possibly indicates that the same consumers are purchasers of both wine categories, usually substituting the one for the other according to criteria that prevail under different contextual conditions (e.g. occasion a bottle of wine is purchased for, availability of wide range of wines in relevant outlets and convenience of accessing them, etc.). Also striking is the finding that the heavy frequency of wine purchasing does not seem to be depended on socio-demographic characteristics of the buyers. Again, more customised, personality-related characteristics (e.g. consumers' attitudes and beliefs) or even purchasing context-specific factors as above might offer more valuable explanatory insights than socio-demographics as to the reasons that make a consumer to be a frequent wine buyer.

The importance ranking of the wine selection criteria included in the present survey points out to the accuracy of the wine attributes selected as potential drivers of consumer loyalty to a wine brand, and offers face validity to the study. In this respect, it is shown that Greek consumers select wines based on region of origin, wine variety, price and winemaker's fame. The fact that variety/region combinations are more important criteria than brand name constitutes both a reason for and an indication of the large fragmentation of the wine market at the brand level. This fragmentation justifies to a substantial extent the low loyalty levels exhibited in the present survey, as it will be discussed further in this section.

One of the most interesting parts of the findings is what concerns consumer loyalty towards the Greek varieties under examination. Following the indications about large fragmentation of the wine market at the brand level, loyalty towards all varieties is found very low, with no differences between white and red wine varieties. This implies that the consumers of the survey are not fond of any (Greek) variety in particular, thus substitution of one wine brand from one variety (red or white) for another wine brand of another variety can usually happen, especially since the same consumer can equally well buy red or white wine, as shown before. Hence, the (Greek) variety of wine does not constitute an extrinsic cue that can create loyalty to the category. In this respect, the high market shares, penetrations and purchase frequencies found at the variety level do not seem to owe their existence to the origin or type of the varieties. Moreover, the neutral level of attitudinal loyalty to the varieties under examination further justifies the above finding and offers additional face validity to the research. Nevertheless, regarding in particular the comparison between attitudinal and behavioural loyalty, the high reliability coefficients of the attitudinal loyalty scales for each variety indicate that the specific loyalty measurements can function as a robust basis to compare polarisation-type of loyalties steaming from Juster estimates.

On the other hand, the results regarding the VQPRD quality certification are more straightforward. Quality certification seems to constitute a very powerful attribute irrespective of wine category (white or red) or variety. However, results in this respect should be interpreted with caution, since the representation in the

research design of non-certified wines, or of wines with other types of quality certification (e.g. regional wines) is particularly small, meaning that the results are dominated by VQPRD wine brands across categories and varieties.

The importance of the winemaker's corporate size is hard to grasp through the present findings. A certain trend that can be supported is the fact that the (consumer inferred) average corporate size of the winemaker is the less successful winemaker-related characteristic of a wine product across categories and varieties. This might again relate to a perception trade-off consumers engage in during the wine selection process, since both small- and large winemaker size might be perceived as a positive heuristic that is associated with a certain expertise or fame on behalf of the wine producer (e.g. big size might imply a successful, experienced producer with accumulated market expertise; and small size might indicate technical/oenological expertise, specialisation in specific production methods and low volume-high quality market orientation). In general, however, it needs to become clear that the results in respect to winemakers' corporate size are proven to be variant and too much variety-dependent. It is also possible that the winemaker's fame, which is also found to be among the most important self-reported wine selection criteria as explained above, is not represented well by the winemakers' corporate size (in other words, the mental distance in consumers' associations between corporate size and market value is too large). Finally, the underrepresentation of medium-sized winemakers can also be a limitation that changes brand performance measures in favour of the small- and (mainly) large-sized winemakers.

Focusing on the price attribute, the preference for usually average price tiers across all wine varieties analysed may indicate a type of value-cost trade-off resulting to low and high prices' aversion; low prices may indicate lack of product quality in the eyes of the customers leading to a high-risk buying decision; and high-price aversion may be the outcome of the widely held perception among Greek consumers that wine is often a low value-for-money product. After all, price is found to be one of the most important self-reported criteria of wine selection, as described above. Nevertheless, the present results in relation to price imply a certain positioning of the Greek white wine brands at a more premium market level compared to the Greek red wine brands examined here (i.e. higher price tiers in Asyrtiko white wine acquire higher market share, penetration and purchase frequency, where as for Xinomauro red wines the case is the opposite). It thus seems that although medium prices are usually preferred, the importance of price is overall category-dependent, closely mirroring value-cost considerations.

In terms of loyalty, price is an important factor primarily for the white wine category; additionally, not only the high-price tier in Asyrtiko and Moshofilero wines, but also the low-price tier in the former and the medium-price tier in the latter can also stimulate consumer loyalty. As regards red wines, the medium-price tier creates more loyalty, especially in the Xinomauro variety, which is in accordance with the above-described findings about medium-priced red wines usually achieving higher market shares, penetrations and purchasing frequencies. All in all, although there is a certain variation at the variety level, price considerations follow the red-white wine category differentiation, with red wines being better positioned at medium price levels and white wines at both medium and high price levels.

CONCLUSIONS

Wine marketers have always been eager in building strong bonds with their customers. Therefore, identifying which wine attributes make consumers loyal and increase their chances of repeat purchase is always of high importance. Moreover, delineating the issue of loyalty to a wine brand and to the cues (i.e. extrinsic attributes) that are found on the label (e.g. variety, winemaker, VQPRD sign, etc.) can further help wine practitioners to determine which product attributes "stimulate" loyalty and consequently create tailor-made products that fit the market better and increase market shares. In this respect, the findings of the present study point to the conclusion that each one of the four Greek wine varieties under examination exhibits its own market structure and loyalty profile, whereas price, quality certification and winemaker's size seem to function as loyalty stimulators more effectively for white wines. Moreover, it is also clear that the origin or type of the wine variety *per se* does not constitute a particularly important loyalty component in the wines' marketing mix.

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CONCEPTUAL DESIGN OF A FINANCIAL APPROACH TO DEVELOPING COMPETITIVE ADVANTAGE THROUGH RESPONSIBLE TOURISM

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The purpose of this conceptual paper is to structure a model explaining how businesses operating within the field of tourism could gain competitive advantage and improve their financial performance through Corporate Social Responsibility (CSR). The link between financial performance and CSR has been widely studied, and evidence for positive correlation exists. The concepts of sustainability and responsibility in tourism are on the other hand not clearly defined, leaving room for various interpretations. This may provide an explanation of why currently there are few tourism operators pursuing financial gains through CSR, even if studies indicate demand for responsibility. This paper argues that currently no operator/service provider really understands the demand for responsibility and a customer is not able to ask for something of which he has no previous experience. By determining what the real demand for responsibility in tourism means, a company could - by meeting this demand - gain a competitive advantage through a responsible brand and thus improve financial performance. The performance would be measured by revenue, as this is what the consumer choice changes, as well as net income, in order to include the cost of responsible actions. Based on the findings of the literature study on CSR, sustainability in tourism and consumer behaviour this paper presents a conceptual framework through which the perceived demand for responsibility in tourism could be translated into increased sales and profits.

INTRODUCTION

Currently, sustainability and corporate social responsibility (CSR) are widely accepted concepts in the world of business. The approach of combining financial and societal goals under CSR has been extensively studied. A number of studies have linked the social and financial performance of a company, finding a positive correlation between these two (Orlitzky *et al.*, 2003; Porter and Kramer, 2006); other research has found no evidence of companies being able to perform better in economic terms when using social strategies in their financial planning (Husted and Allen, 2007). However, research has also shown that companies embrace the concept of sustainability and CSR when there is market demand for responsibility in business (Vogel, 2005). Although sustainability is one of the most common axioms in the field of tourism (WTO, 2004), scholarly research that links social and financial performance is limited. The purpose of this conceptual paper is to structure a model that can explain how businesses operating within the field of tourism could gain competitive advantage through CSR and improve their financial performance. The paper argues that the reason behind this is that no operator/service provider really understands the existing demand for social responsibility and a customer cannot demand something of which he has no previous experience. By determining the true demand for social responsibility in tourism and meeting it, a company could gain a competitive advantage for its business (responsible brand) and thus improve financial performance measured mainly by revenue (as this is what the consumer choice affects) as well as net income (to include the cost of being responsible).

The remainder of this paper is organized as follows: Section 2 presents an overview of related CSR literature. Terminology related to sustainability within the tourism sector is summarized in Section 3. Section 4 covers existing research of indicators for sustainable tourism. Section 5 develops hypotheses on how responsibility could benefit tourism operators and what are the requirements for improved financial performance through responsibility. Section 6 discusses the core of our study and presents a model on gaining competitive advantage and improved financial results through responsible tourism. Section 7 summarises this study.

RELATED CSR LITERATURE

Covering CSR literature involves combining two areas of study: research on CSR as theory and the link between responsibility and financial performance. Most of the research on these two areas is not concentrated on any specific field of business and this literature review actually revealed the minimal amount studies combining tourism, CSR and financial performance. This part of the review is divided in two subsections; the general CSR-theory and research into the link between CSR and the financial performance of a company. Some tourism related specific studies are discussed as part of the following two sections on tourism terminology and indicators.

Corporate Social Responsibility as a Theory

Corporate Social Responsibility has been the topic of numerous studies ever since Friedman (1970) argued that companies should not engage in such activities. The purpose of this review is not to summarize decades of CSR research exhaustively, but to cover a few key points which are fundamental to the link between the financial and social performance of companies discussed later. Carroll (1979) presented a model of different dimensions of corporate responsibility that was an acknowledged effort to create a tool for managers to respond to questions and challenges arising in this emerging field. This is an opposite view from that of Friedman as it assumes that managers should react to such questions.

Research in this area has subsequently widened significantly. Garriga (2004) divided theories related to CSR into four main categories based on how they define the relationship between a company and the surrounding society. In some respects this division could be argued to be too general, but it provides some interesting starting points for this study. He combines theories which emphasize performance improvement through responsibility under “instrumental theories”; this study will also adopt this approach. It is important to note that the question of how a company could create competitive advantage and thus improve its financial performance does not exclude other drivers for responsible behaviour, such as a genuine desire to be a good corporate citizen. It rather combines these two potential positive outcomes. As noted by Bondy (2008), any positive outcomes might be limited if responsibility becomes an instrument in a struggle for power within an organization and people start using it to pursue personal goals.

The approach of combining financial and societal goals in CSR has been widely studied. Examining corporate strategy and the importance of CSR, Porter and Kramer (2006) look at different justifications for CSR activities, and suggest that implementing responsible activities may benefit both the company as well as society as a whole. They call for strategic CSR decisions through which organizations can differentiate themselves from their competitors. Their arguments were challenged by Husted and Allen (2007), who studied the value created through CSR in a multinational company. They found some correlation between the social and economic performance of companies but could not show evidence of a direct causality. However, here the question can be returned to the starting point: is there no value that can be created through these strategies or have the strategies simply been wrong?

The difference between the papers mentioned above and many other CSR studies is that other researchers focus primarily on dealing with the demands that companies face, instead of proactively developing responsibility with the ultimate goal of improving performance. An example is a study by Waddock *et al.* (2002), which examines the pressures set by society, NGOs and other stakeholders, to which companies must respond. A more fundamental questioning of current practices grouped under the umbrella of corporate social responsibility is posed by Margolis and Walsh (2003); they raise the question of when do corporate actions actually benefit the surrounding society. Brammer and Pavelin (2006) took the next step and examined the “fit” of CSR activities; that is, how well the activities are suited to the actual business of the company. Their findings supported the claim that not only must the CSR activities be beneficial, it is also critical that they are perceived to be part of the business in the eyes of the stakeholders.

Link between CSR and financial performance

A natural next step from theoretical studies of CSR to examining potential applications for gaining competitive advantage is research into the link between the social and financial performance of a company. A plethora of studies of this type have been made (e.g. Cochran and Wood, 1984; Waddock and Graves, 1997;

Griffin and Mahon, 1997; Roberts and Dowling, 2002; Goll and Rasheed, 2002) and these have been further examined through meta-analyses of the results of individual studies (Margolis and Walsh, 2003; Orlitzky *et al.*, 2003; Wu, 2006). The next paragraphs discuss these studies, their results and some limitations of these studies.

The link between corporate social and financial performance is often measured as a correlation between indicators of each aspect. The selection of these indicators thus becomes the key factor of such a study. Margolis and Walsh (2003) included 127 studies in their meta-analysis and listed the indicators used. A variety of methods were used to measure corporate social performance (CSP) but the most common were rankings of Fortune magazine, KLD Social index and CEP as well as mutual fund screens and company disclosures. For corporate financial performance (CFP) the differences were less obvious, with most studies using either market or accounting performance, or both, as indicators. The initial results coincide with the results of another important study in the same area: both Margolis and Walsh (2003) and Orlitzky *et al.* (2003) found a clear positive correlation between CSP and CFP and very little evidence of any negative impact of CSP.

Orlitzky *et al.* (2003) emphasize the correlation between CSP and CFP and discuss the importance of reputation for companies. They use their findings in order to disagree and agree simultaneously with Friedman; they disagree with the aspect of CSP activities being controversial to the concept of shareholder value but agree with his comments related to minimizing the role of governments. They conclude by hailing the role of responsibility as a tool for improving financial performance. Margolis and Walsh (2003) on the other hand take a much more pessimistic view and question the basis of CSP and when it is beneficial to the society as a whole.

The first limitation, as pointed out by Goll and Rasheed (2002) is the lack of objective measures for social performance. As explained previously, a multitude of different indices, rankings and ratings are used for this purpose, but it is not clear if any one of them really measures the positive impact that a corporation can have on its stakeholders. This lack of objective measurement can severely impair the results obtained. Some of these measures are very likely to be relevant, but as Porter and Kramer (2006) point out, the popularity of the topic has led into what they call "the Ratings Game", a confusion caused by all the different providers of responsibility data. An example of this is provided by Waddock *et al.* (2002); they list examples of corporate reputation and responsibility related standards - both of these lists contain more than 10 different items. Hamann (2007) notes that the motives for assessing the social performance of a company and the organization conducting the assessment should be carefully evaluated and questioned before using the results. The need for clear definition and measurement of what responsibility means is evident; whether this can be done on a general level or on a company basis remains unclear so far.

Continuing with the scepticism towards the correlation analysis between CSP and CFP, Pelozo and Papania (2008) emphasize the need to consider which stakeholders are in a position to reward or punish the corporation financially through their actions. According to their study this could be an important factor in explaining the correlation between CSP and CFP. They ask how financial performance should be measured. The method of using market valuation fully or partly for this purpose as explained earlier is controversial, as the stakeholders benefiting or suffering from the company activities may not have any means to affect the market valuation. Bird *et al.* (2007) conclude that management might be misguided in their actions if they blindly follow market valuation as a guideline for CSR activities to pursue.

TERMINOLOGY RELATED TO CSR WITHIN THE TOURISM SECTOR

The initiatives for responsible business have made their mark within tourism and there exists overlapping terminology describing them. The most important terms used are sustainable tourism, ecotourism, green tourism, environmentally friendly tourism and nature-conserving tourism. The purpose of this section is to clarify these concepts and discuss their differences, strengths and weaknesses.

Sustainable Tourism

Perhaps the most common definition used for sustainable tourism is the one established by World Tourism Organisation (WTO). The current definition (WTO, 2004) concentrates on optimizing the use of resources to conserve the environment, respecting the local communities and sharing the benefits of tourism with all stakeholders. In addition, they also emphasize the satisfaction of the tourists – a highly important point when NGOs and businesses meet. This view of including all the stakeholders was also promoted by Byrd *et al.* (2007).

A recent initiative to define sustainable tourism more practically is the “Global Sustainable Tourism Criteria” launched in late 2008 by the Partnership for Global Sustainable Tourism Criteria (GSTC). Their mission is to build “a set of baseline criteria organized around the four pillars of sustainable tourism: effective sustainability planning; maximizing social and economic benefits to the local community; reduction of negative impacts to cultural heritage; and reduction of negative impacts to environmental heritage.” (GSTC, 2008: *About the Partnership*). These criteria should serve as a guideline for businesses, consumers, media and other users for recognizing sustainable practises in tourism.

Some academics however criticise the concept of sustainable tourism itself. McKercher (1993) doubts that the combination of sustainability and tourism is feasible, as tourism is a consuming activity by nature. This extreme view would deny the existence of responsible tourism. However, the tourism industry continues to expand and there is a strong case for minimising the resulting negative impacts. On a more conceptual level of what sustainable development means Sharpley (2000) agreed with McKercher’s view and concluded that sustainable tourism cannot exist. He argues that while many of the principles related to the area are important and tourism can be important in development, tourism should be developed further “without hiding behind the politically acceptable yet – in the context of tourism – inappropriate banner of sustainable development” (Sharpley, 2000: 15).

Despite this fundamental critique, some form of sustainable tourism exists. This discussion is closely related to the debate about “greenwashing”, making unjustified claims about the environmental consciousness of a business. Lansing and De Vries (2007) studied the arguments between those claiming sustainable tourism as a real ethical alternative and those seeing it as a marketing ploy, and concluded that at the time there did not seem to be enough evidence for using sustainability as a basis of marketing. In another critique to the concept of sustainable tourism Liu (2003) suggests several weak points in the research but calls for less idealistic and more practical studies in order to avoid the risk of research becoming irrelevant to the real world. This clearly advocates the positive opportunities that can be provided by research.

The development and use of clearly defined sustainability standards in tourism is called for by several authors, for example Lansing and De Vries (2007) and Liu (2000). McCool *et al.* (2001) defined some possible indicators for sustainable tourism in Montana, but at the same time emphasized the importance of first clarifying what is meant by sustainability before trying to measure it. Finally, Sharpley (2000) raises the question of whether sustainable tourism refers to the qualities linked with sustainable development or actually the sustainability of the industry itself. The definition of sustainable tourism remains controversial and unclear as pointed out by a mapping of different definitions for sustainable tourism made by Dolnicar (2006). Despite all the controversy, the “real world” development with the launch of GSTC seems to go hand in hand with what the research is suggesting.

Ecotourism

Another important concept linked with sustainable tourism is ecotourism, a term closely related with nature-conserving tourists and environmentally friendly tourists. Although the goal of this paper is not to look into all the definitions of the area, ecotourism requires a brief discussion.

Dolnicar (2006) pointed out that there is no common agreement on the meaning of these terms, but several authors have tried to list qualifying criteria. Credited in some texts as the originator of the term ecotourism,

Ceballos-Lascurain (1996), along with Ballantine and Eagles (1994) include enjoying undisturbed nature in their definitions of ecotourism. This clearly differentiates ecotourism from sustainable tourism as nature itself becomes the product offered. As the aspect of conserving nature is strongly incorporated in the term, ecotourism could be claimed to be a subdivision of sustainable tourism. However, Dolnicar (2006) points out that ecotourism is largely demand-oriented whereas sustainable tourism appears to be the opposite and driven by supply. This distinction will be used later when discussing the shortcomings of what is currently known as sustainable tourism.

Page and Dowling (2002) collected results of studies on the characteristics of ecotourists, but much criticism is directed at categorisations based on income or level of education. As Dolnicar *et al.* (2008) point out, there is no firm knowledge of who these environmentally friendly tourists really are and whether their ecological footprint is any smaller than that of a mainstream tourist. The study raises the interesting question of whether there is any link between the everyday behaviour of individuals and their behaviour as tourists. Sharpley (2006) agrees on the lack of “ecotourists” as individuals by asking whether the increased demand for ecotourism actually means increased amount of ecologically friendly tourists. In his view it is not possible to separate these from mainstream tourists.

The credibility of ecotourism itself is another major concern expressed by researchers. In a critique Liu (2003) points out that there are often marketing related factors behind ecotourism and the risk of “greenwashing” is always present. Sharpley (2006) continues that ecotourism is a form of consumption; he questions whether a real ecologically friendly approach can ever be achieved, but at the same time he recognizes the significant contribution that ecotourism can have on conservation and local communities.

RESEARCH ON INDICATORS FOR MEASURING SUSTAINABILITY

Karmani (2007) argues that tourism is a sector that can provide low-skilled jobs in developing countries and thus help alleviating poverty. The lack of concrete evidence however prevents tourism operators from using this statement further in their business. Less encouraging results for sustainability in tourism were found by Clavier-Cortes *et al.* (2007), whose case study made in Spain concluded that no link between environmental strategies and profit could be established. This study was however concentrating only on the natural environment and none of the other aspects of sustainability.

For the moment, the most noteworthy effort to create a set of indicators for sustainable tourism may be the ISO 14001 standards, and there is evidence that hotels are adopting them (Bambrook, 2008). However, general standards like ISO can never fully meet the business specific needs of different tourism operators. Furthermore, the risk of having several competing ratings, as discussed in the CSR section, exists. CSR reporting in the tourism industry, more specifically in hotels, was studied by Holcomb *et al.* (2005), who claim that at the time of the study the tourism industry was still lagging behind in CSR; for example, charitable donations were still the most common form of CSR. Further evidence of this was provided by Ashley and Haysom (2006), who studied the popularity of tourism-related philanthropy in South-Africa. The obvious appeal of this approach is the easy measurement of funds donated. Holcomb *et al.* (2005) also drew attention not only to the tourism industry lagging behind in CSR but also on the minimal research in the field.

Byrd (2007) drew attention to the relationship between stakeholder theory and the development of sustainable tourism. This approach touches on one of the fundamental questions when assessing the external impacts of a business: who is affected? The stakeholder approach can offer some basis for developing indicators. Baros and David (2007) emphasize the importance of selecting the right set of indicators, but their study does not offer concrete examples of how to do this. Also Gurney and Humphreys (2006), in their theoretical paper based on a holiday resort, emphasized the need for indicators.

A practical approach to indicators was made by McCool *et al.* (2001), who first asked about the goals of sustainable tourism and then used the answers to evaluate different indicators. This is still, however, a supply-oriented approach and does not discuss the demand side of responsibility in tourism. Skinner *et al.* (2004) study the possibility of starting a Sustainable Tourism Stewardship Council based on the model of

certification organisations. This initiative is again based on creating a one-size-fits-all set of principles that might prove to be difficult to apply in the tourism industry with all its small operators. So far the concrete result of that study has been the launch of Sustainable Tourism Certification Network of the Americas but no standards have been created (Rainforest Alliance, 2009).

Kasim (2004) gets closest to the question of whether sustainable tourism is financially worthwhile with his case study of the customers of resorts in Penang Island, Malaysia. His findings confirm that tourists understand the issues related to sustainability, but do not really act based on this criteria, for example by switching hotels. Furthermore his survey suggests that people care less about responsibility when they are on holiday. These findings are closely related to the main theme of this study, which is whether offering demand-based responsibility could make the difference to customer response.

IMPROVED FINANCIAL PERFORMANCE THROUGH RESPONSIBLE TOURISM

The objective of this section is to discuss in theory how businesses operating in the field of tourism could gain a competitive advantage through CSR with the goal of improving their financial performance. This theoretical discussion can later be used as the basis for an in-depth analysis including practical testing with suitable set(s) of data. The first step is a set of hypotheses about the mechanism of how responsibility could lead to improved financial performance. In practise this means determining the requirements and defining the major hurdles stopping businesses from pursuing this strategy.

Studies made by consultancies confirm that companies believe in the demand for CSR when conducting their business (Vogel, 2005). Therefore this study makes the assumption that some of the customers also within the field of tourism would be willing to choose a responsible provider for their holiday activities, provided they perceive the responsibility offered meaningful. This preference would translate into increased demand for these businesses, but only when the supply meets the demand for responsibility. In terms of business this would mean a competitive advantage through responsibility and thus improved financial performance.

In this study financial performance is defined solely as increased sales and profitability. This is different from many of the CSR studies which also consider share price performance as a measure of financial performance (Orlitzky *et al.*, 2003). The reason for excluding share price is that as the driver for responsibility in business is obtaining a competitive advantage in the eyes of existing and potential customers, a successful strategy will result in more sales. Share price increase should be regarded merely as a result of this improvement in performance (or an anticipation of it) but not a direct result of implementing responsibility. Thus, in order to study the effects of CSR on performance only the customer-induced change in financial performance should be measured.

Transferring a perceived demand for responsibility into a purchase criteria and an actual decision can be challenging. One reason, specifically in the area of tourism, might be the different ways of defining responsibility and sustainability. Therefore, this study will use the term responsible tourism as a balanced and fair approach towards all stakeholders. Furthermore, the study also follows the instrumental school of thought about CSR, believing that the prime purpose for a company to conduct business in a responsible manner is to improve profitability. Selecting this approach increases the number of companies for which the results are applicable to any for-profit organization. Companies that could have mixed motivation behind responsibility, for example some combination of profit and general "good citizenship", are not excluded as long as profitability is one of the drivers. Additional philanthropic goals of the company will not contradict this approach either. Therefore the widest possible range of companies for the study is available without any need for subjective evaluations on their underlying motives.

The first question is: why does the perceived willingness to prefer responsible products (e.g. Cowe and Williams, 2001) not transfer itself into a purchase decision in tourism, where the funds consumed for travelling are not used for basic needs but are "extra"? This study takes a customer-oriented approach and suggests that the reason is a fundamental question of demand and supply: the supply of responsibility

offered by companies does not meet with the demand and thus efforts on improving performance through responsibility have produced weak results at best.

Another important concept for the hypotheses made in this paper is the concept of latent demand. According to Fuller *et al.* (2007: 85)

“Latent demand may be defined as an activity not demanded by consumers at a particular time and at a particular location because the cost of supplying the activity is regarded as too high, but if supplied, would be demanded by consumers.”

Hypothesis 1: If operators in the field of tourism were able meet their customers’ real demand for responsibility, as opposed to offering a supply of what they perceive as responsibility, they could enjoy a competitive advantage.

This hypothesis assumes that tourists as consumers are not able to ask the right questions themselves, i.e. their demand is latent as defined above. They simply reject what is being offered by the industry as irrelevant. The reason behind this is that the customers do not have the experience in this field to state clearly what the operators should offer to satisfy their needs. To be able to evaluate fully whether this hypothesis is correct, a broad analysis of what tourists mean by responsibility needs to be conducted. However, some small companies have been able, at least partially, to answer the responsibility demand of their own small customer groups.

An example of this is the Pacific Whale Foundation, a combined research organisation and tourism operator. The company offers whale and dolphin tours, an activity that falls within the domain of ecotourism, but at the same time they strive to do this in a responsible and eco-friendly manner and try to involve their customers in activities that help to preserve nature (Pacific Whale Foundation, 2009). Whether they have chosen this approach through focused and formalized research, good understanding of the customers or a primary interest in conservation is unclear. The responsibility statements of successful responsible operators and those of the mainstream could be analyzed to see how they differ. The existence of such a differentiation would support this hypothesis and suggest the need for further research. These potential operators will be referred to as “CSR-branded companies”.

Being able to create a “CSR-brand” in tourism could be an effective way to increase sales and profit. Fuller *et al.* (2007) argue that leading companies can deliver products exceeding expectations and thus achieve market leadership while maintaining profitability. Jamrozny (2007) discusses marketing of sustainable tourism and suggests that the area could change profoundly. In his study of the hospitality industry, Tepeci (1999) emphasizes the importance of brand loyalty, which is keeping customers once they have been attracted, in running a profitable operation. Some efforts have been made in researching sustainable branding. Woodland (2007) studied this in the South Downs of the UK and suggested that the approach could boost business in the region. However, apart from local experiments, responsibility branding remains a largely untapped opportunity in tourism and could prove to be the next winning proposition.

The use of indicators in demonstrating responsible behaviour is acknowledged and there are several different ways of measuring (Waddock *et al.*, 2003). Tourism research emphasizes the importance of measurement with correct indicators (e.g. Gurney and Humphreys, 2006 and Baros and David (2007). However, Porter (2006) points out the dangers of confusion created by the number of different agencies and ratings systems as well as the potential inaccuracies in their data. The statement of “too much of a good thing” seems to be true related to measuring CSR performance and this could be one factor preventing businesses from pursuing competitive advantage through responsibility. Hypothesis 2 addresses the role of measurement and indicators.

Hypothesis 2: Successful indicators used to measure responsibility in tourism have to be industry specific, understandable, concrete and meaningful for the customer.

However, measuring variables where positive development also means immediate financial benefit for the company risks being considered greenwashing. Furthermore, the hypothesis could mean just adding to

the chaos of measurement mentioned earlier and therefore it has to be explained further. Instead of one common set of industry-wide measures – like GSTC - we believe that within tourism the best results could be achieved when a company's responsibility objectives arise from the business and location itself, not from a definite set of global standards. The key for a successful indicator is the customer. If the customer does not feel that the indicator is relevant, there is little chance of creating a preference for that particular company. Where some areas of tourism are more similar around the world, e.g. luxury hotels, the business in general is tied to the location in which it operates. Trying to fit these local differences into a global mould is likely to result in indicators that are not satisfying for the customer, as implied by Kasim (2004). This does little good for the company itself – apart from possibly getting expert recognition that does not turn into increased profits.

What kind of indicators then fill the criteria hypothesized above? As with the first hypothesis, it is unfortunately not possible to answer this question without extensive research far beyond the scope of this paper. The purpose of hypothesis two is, for now, to cast a doubt on blind reliance on global measurement systems and indicators in tourism, despite the obvious appeal and the compelling logic behind initiatives like the GSTC.

The last step in the model is to form a link between financial performance of a business and its perceived responsibility. As discussed earlier, only growth in sales and profitability should be used as these are a result of the customers' actions. More customers choosing the CSR-brand company will mean faster-than-average growth in sales. This alone, however, is not enough. Responsible ways of operating may in some cases generate substantially more expenses and therefore profitability is at risk. According to the CSR approach chosen, the driver for a company to be responsible is profitability and therefore it must be also measured.

Hypothesis 3: A CSR-brand operator in tourism can achieve a competitive advantage which translates into higher-than-average growth in revenue and profits.

A full study of this hypothesis would require the validation of the two first hypotheses since it assumes the existence of a CSR-brand company, but could also provide a key for future success within the industry. In this conceptual paper, it was not possible to look at financial data. As there are few, if any, examples of companies fulfilling the criteria discussed above, the validation will not be exhaustive before enough operators have adopted the principles discussed.

Another difficulty is to assess the impact of responsible business versus other factors ranging from new trends in tourism to the global economy and their individual effects on financial performance. Further study should also cover existing responsible tourism and whether any financial improvement can be shown there even if the population size would be small for significant results.

A DESIGN FOR A FINANCIAL APPROACH TO DEVELOPING COMPETITIVE ADVANTAGE THROUGH RESPONSIBLE TOURISM

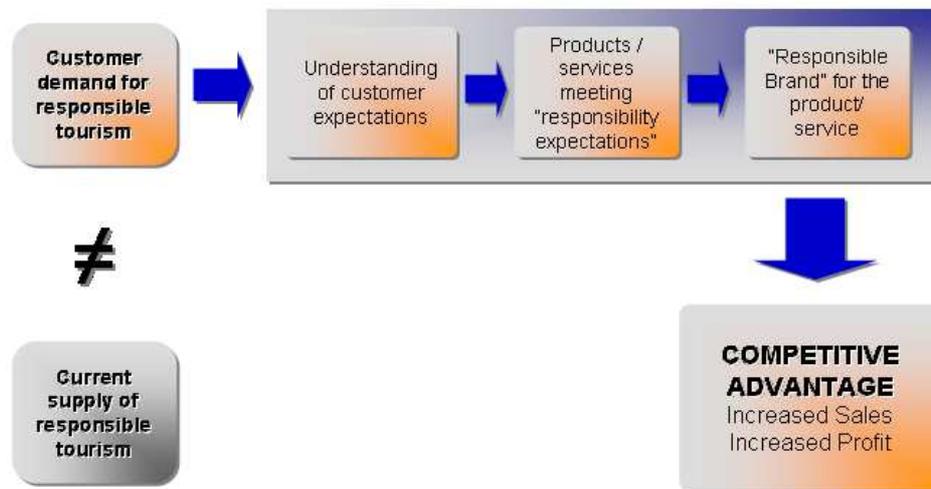
The lack of universal definitions for terms like sustainable tourism, ecotourism, green tourism and environmentally friendly tourism has partly led to a distrust of the whole domain, especially when there has been suspicion of greenwashing as part of these efforts. However, the recent launch of “The Green Directory”, a website dedicated to responsible travel by a U.S. online travel agency Travelocity, proves that there exists confidence in the opportunities provided by responsibility in tourism.

The focus of this study is finding a new way to gain competitive advantage, and instead of using any of the above discussed terminology this research will use the term “responsible tourism”. This will include the tourism operator’s behaviour towards the environment as well as all other stakeholders of the business from employees to suppliers and from local communities to investors and the government. All of these relationships, when handled responsibly, should be balanced and mutually beneficial. Defining responsibility this way liberates the research from concentrating too much on the environmental impact of the business and enlarges the potential customer base from eco/environmentally aware individuals to anyone interested in the well-being of society as a whole. As this study takes a customer-oriented approach to the demand of responsibility in tourism, this framework provides a good starting point for formulating a general theory on the topic and later gathering data in order to test it.

To avoid misguidance, this study will concentrate on the indicators of financial performance that can be affected by a potential customer of a tourism business. Revenue and net income of a company should be the only financial measures considered when making a customer-oriented study. The purchase decision – negative or positive – is the moment when each individual can “vote with their feet”; a customer can choose to support or reject the CSR-activities taken by the company. For example, a market valuation-based measurement does not reflect the customers’ immediate decisions, but the anticipation of the decisions by the financial market participants.

Figure 1 presents the structure of a model that can explain how businesses operating within the tourism sector could gain competitive advantage through CSR, improving their financial performance. As we have argued above, there is dislocation in the market for products and services that connote responsible tourism. In Figure 1 we observe that the supply for ‘real’ responsible tourism must be based on two pillars: customers’ expectations of responsibility and the provision of product/services that meet those expectations. By responding to such demand, tourism providers can gain a competitive advantage for their businesses. This demand must carry a “responsible brand”; thus by attracting such demand, improvement of financial performance measured mainly by revenue (as this is what consumer choice affects) as well as net income (to include the cost of being responsible) should occur.

Demand and Supply of Responsible Tourism: a Conceptual Model of Competitive Advantage



Kuokkanen & Rios-Morales (2009)

Figure 1

CONCLUSIONS

This paper maintains that the “sustainable” or “responsible” tourism offered today does not attract demand due to the dislocation between supply and demand. We argue that the underlying reason is that the tourism operators and service providers have little or limited knowledge of the real demand for responsibility. Providers select their responsible actions without studying the demand by the customers. Therefore the demand for the existing supply of responsibility remains weak. Tourism operators will need to determine their customers’ expectations; meeting this demand is a key to competitive advantage. We also argue that businesses would need to develop “responsible brands” supported by a tailored set of indicators in order to create this competitive advantage. The new demand from customers seeking responsibility will improve financial performance through increased volume and revenue.

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THE FINANCIAL DERIVATES IN THE ITALIAN LOCAL AUTHORITIES

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Purpose. The main aim of this paper is to emphasize the potentially dangerous effects on the finances of the local authorities that utilize derivative instruments. Especially it stresses the opacity of the contractual mechanisms, the lack of information, the different purposes that have induced local representatives to subscribe such contracts, the potential difficulties that economic operators shall deal with, in coming years, and the possible solutions to a problem that is going to assume huge dimensions, in the future.

Design/methodology/approach. The present situation of Italian local authorities, both municipalities and provinces and in particular of Pozzuoli has been analysed, through the processing of the data furnished by the "Corte dei Conti" and the results of the survey have been emphasized.

Findings. This survey has shown that in spite of the bad practices, such as most derivatives have proved themselves, perhaps also because of the crisis on financial markets, the innovative finance has produced typologies of instruments that have given a strong input to local development and growing.

Originality/value. The following step after this survey would be the developing of a different approach to prevent an improper utilization of derivatives in the future and to permit local authorities to exploit the benefits that come from a careful use of the financial risk management.

Keywords local authorities, derivative, innovative finance, dangerous effects.

Paper type Case study

INTRODUCTION

The acknowledgment, brought about with the constitutional reform in 2001, of the financial autonomy of the public territorial entities, with the subsequent marginalization of the financial resources from the centre to the outskirts, has had, as is known, as an important consequence, the matter of the indebtedness of the local authorities.

The course which has brought the local authorities to an administrative and financial autonomy, in Italy, has been long and characterized by a succession of insurmountable difficulties, especially regarding the problem of the local finance which, to this day, has yet to find a radical solution able to conciliate autonomy, transparency and rapid methods of retrieval of the economical-financial resources.

In other terms, with the reform, the problem of finding external sources of financing of the investment expenses of the local authorities, has intensified. These, together with the divestment of their own disposable assets and the processes of privatization, have taken out passive loans and issued debenture loans.

In sum, the changeover from a "derivative" public financial system to a regime of autonomous finance has brought about the running out of numerous resources previously transferred from the central Government.

Such reduction has come about contemporarily with the increase of the demand for services by citizens, to which, at least initially, a guaranteed financial coverage, was not assured.

Together with this, the restrictions on the demand for credit of the local authorities have increased, derived both from reconstructive actions of the public finance and from the entrance of Italy into the European union first, and subsequently into Euroworld.

This context which has just been described, of scarce resources, timid tax autonomy and growing restrictions on indebtedness, has given rise to the need to turn to financial instruments which allow for the search of sources without having to readjust local taxation excessively and without further burdening the budget with the expense of passive interest rates.

Financial instruments created for use in private enterprise have been adapted to the needs of the local authorities, instruments for the active management of debt and liquidity have been created, the debt has been restructured, private subjects have been involved in the management of these instruments.

This phenomenon which has been defined by many observers as the “innovative finance” has been proposed as an alternative to traditional finance.

The financial innovation has produced types of derivative instruments with levels of complexities and structural characteristics diverse amongst themselves. From the first forward contracts one has moved, with modern finance, to swaps and to option contracts, up to instruments of a complex structure.

When one speaks of derivative instruments, therefore, one refers to a very heterogeneous whole of instruments with characteristics and mechanisms with different functions.

In principle, derivative instruments carry out a positive function for the financial system, as they allow for an optimal allocation of the risks. As a matter of fact, derivatives allow for the transfer of risks towards those subjects who are better capable of bearing or managing them.

The evolution of the market has brought about the affirmation of more and more complex instruments, the comprehension and evaluation of which requires sophisticated financial capabilities. Such capabilities, however tend inevitably to remain concentrated among the brokers.

For those functions, therefore, the derivative contracts and markets have been recognized by the economical-financial theory as elements of fundamental importance for the overall efficiency of the financial system.

The most complex problem of the derivatives, has always been that of the assessment of their value, or rather, of their estimated value. The estimate of the value of the derivative products, at a certain moment, requires the capacity to simulate the possible future scenarios of the underlying with the aim of determining, for each scenario, the subsequent value of the pay-off.

Their trend “derives” from other financial products. From here the risk level implicit in the “derivatives”. These are confirmed, however, as an important opportunity for those administrations short of resources, involved in operations of debt restructuring or research of funds for new investments.

The recent developments of the international economy have seen to it that terms such as derivatives, futures and options are pointed out as “instruments of the devil”. In particular the operations of derived finance are placed on the defendant’s stand, together with the so-called sub-prime loans.

In reality, this is not totally true. The financial crisis is making its effects heard even in the delicate public Italian finance, with repercussions on the entire sector of the public local administrations.

This paper comprises two ideal parts.

The first part supplies an analysis of the benefits that the use of such instruments can bring to the budget of the local authorities, the problems which they cause the moment they are not used in an appropriate manner and the abuse that the administrators of the authorities accomplish the moment in which they persist in using a very complex instrument with the aim of solving today’s problems by simply putting them off to the future, probably amplifying their negative effects.

Before examining the critical points of the use of financial instruments, the various interventions that the legislator has conducted with the aim of limiting their use to the maximum, have been analysed. As a matter of fact, at the moment, the legislator has prohibited the local authorities with the possibility of undersigning such a type of contract.

Once the regulation has been analysed, the critical points and the advantages that such an instrument can generate, the research has concentrated on a national survey which offers a complete picture of the activities of the authorities.

The survey, which is based on the processing of the data supplied by the “Corte dei Conti” supplies a complete picture of the situation of the authorities which through the years have undersigned such a

contract, and classified according to the number of inhabitants and region, thereby supplying a picture of the possible losses that the authorities expect to endure in the years to come.

In the end, the survey also concentrates on the use of derivatives in the Campania region, analysing in particular the situation which at the moment concerns the municipality of Pozzuoli and which represents an obvious case on the national territory.

THE LOCAL FINANCE AND DERIVATIVES IN THE ITALIAN LOCAL AUTHORITIES

The deep evolution of the financial function of the public authorities has significantly changed the demand for banking and financial services from the public subjects (especially provinces, municipalities and regions) which have felt the need to adopt politics of dynamic and managerial management of the financial activities and liabilities.

A typical and characteristic object of this changing process is the use of derivative instruments for coverage and remodulation of the contracted debts. As a matter of fact, the authorities have started to perceive the need to adopt restructuring techniques of the passed debt, which has long been used among the private subjects, thereby realizing an active management of the debt verged towards diminishing the financial charges of the indebteding operations and to pursue a balanced and dynamic portfolio structure.

The need, from the sub-governmental government authorities, to turn to the drawing up of derivatives can be dated back to 1994.

As a matter of fact, in terms of access to the credit on behalf of the regions, provinces and municipalities, in eliminating the monopoly of the "Cassa Depositi e Prestiti" and reactivating their right to be admitted to the capital market in issuing debenture loans, has inevitably increased the exposure to risk in the fluctuation of exchanges and rates.

The subsequent, strong process of decentralization of the administrative functions and the contextual dynamics of the Italian public finance have determined a trend in the heavily rising debt of the territorial authorities.

It deals with an effect which is totally physiological, and which on its own does not represent a source of concern, but an index of the maturity of the local institutions.

The substantial lack of rules (and the subsequent lack of exercise of ministerial power of coordination) has brought about the development of debatable strategies of "financial survival" on behalf of the administrators of some authorities (often of small dimensions); these, overwhelmed by a growth (of the costs) of the traditional debt at times unbearable and faced with the huge cuts to revenue reassignment, the block of the local taxation system, of the continuous dilation of the uncontrollable expenses and of the severity of the restrictions imposed by the Internal Stability Pact, have often used the derivative instruments not to cover exchange or rate risks, but to pursue goals of a (near) speculative nature, or rather, more mundanely, to "make cash"¹²⁸.

That of the limits for the use of derivative financial instruments on behalf of the local public administrations constitutes a topic of undoubted importance, not only in Italy.

In particular, two possible abnormal aspects in the use of financial derivatives by the territorial authorities, have been adumbrated: on one hand, some may have been coerced into purchasing protective measures against the market risks, whereas in reality they have burdened themselves with heavy future charges, all in favour of the counterpart (or rather, of the bank and broker); on the other hand, other entities would have used the derivative operations to elude the limits of the indebtedness or rather to surreptitiously transfer the charges of their own debts to the future generations.

¹²⁸ Atelli, M. (2008), *Gli strumenti derivati negli enti locali*, Il Sole 24 ore Libri, Milan.

In both cases, it has to do with time bombs that, in the years to come, will not fail to determine a detrimental effect on the finances of the entities themselves.

In synthesis, the principle benefits¹²⁹ that the entities can achieve from a careful application of the *financial risk management* and from the use of the instruments of derivative finance consist in:

- the overcoming of a static vision of the residual debt represented by loans and debenture loans;
- the possibility to intervene on the characteristics of the liabilities, by not eroding the available margins of the plafond of maximum indebtedness;
- the possibility to redefine the financial fluxes which derive from a determined structure of the liability;
- the exploitation to their own advantage, of any trend in the curve of the interest rates futures;
- the stabilisation of the conditions of financial balance, thanks to the possibility to optimise the cost of indebtedness in relation to the trend of the market interest rates;
- the creation of wider margins of financial manoeuvres to destine towards investment expenses;
- the possibility to improve one's own rating by effect of the restructuring of passed debts.

Territorial entities and derivative financial instruments: opportunities and risks

In the past months the debate on the nature and function of derivative financial instruments in relation to the territorial entities and to their activity, has been particularly lively both because some negative financial effects caused by the contracts stipulated in the passed years, have surfaced, and because public attention has been attracted by the more general question of the derivative finance and by the negative consequences that have resulted, even in relation to the trend in the financial markets. In reality, the effects which have appeared in these months are the mere consequence of a conduct carried through in the passed years, and have not been comprehended in all their possible negative implications, neither by the operators of the entities nor by the legislator.

In the financial world, for many years, a lively debate regarding the nature and the potential danger of these types of contracts has been going on, so much so that in 2001 the famous investor Warren Buffet defined them as "financial weapons of mass destruction".

The potentially dangerous effects for the finances of the territorial entities were brought to light by television shows and by numerous journalistic surveys which highlighted, especially, the opacity of the contractual mechanisms and the scarce information of numerous operators of the territorial entities who gave course to these relations.

Moreover, the same legislator, after having allowed the use of this type of financial instrument to the local entities, intervened with a series of regulatory interventions directed, progressively, towards placing some restrictions to their use and to schedule a specific control entrusted to the "Corte dei Conti".

The development of such a financial instrument, can be explained with the possibility of reducing some risks, as well as with the reduction of the coverage costs, with the increase which they entail in the liquidity and therefore in the functioning of the financial markets, with the recent progresses in the field of financial theory, which allow for a more precise assessment of the risks and of the value of the various instruments, as well as with the large possibility of arbitration offered by the differences in regulation at an international level.

It must be remembered that the creation of such instruments has not only had positive effects. As a matter of fact, while their basic goal should be that of reducing the risks for the entities, this cannot always be done completely with single operations; on the other hand, the use of such instruments tends to swell the

² 129 Loris, M. and Nadotti N. (2009), *I derivati nelle PA locali. Origine, dimensione e criticità.*, Franco Angeli, pp 29 -38.

budget, both of the entities and of the banks, and therefore, paradoxically, tends to increase the need for an efficient management of the overall risk, while the data of the budget itself are not easily comprehended.

The emergence of these new instruments contributes to increase the instability of the markets, moving the attention of the operators contemporarily from the basic savings and investment market in the direction of speculation, as well as, in general, towards the yields and short-term perspectives. Whereas, in actual fact the initial aim of the derivatives is to act as protective instruments against risks, they can also be used for speculative purposes, as a matter of fact they are now used a lot more for speculative purposes than for protection purposes.

In recent years these have also been used to hide budget losses, to forward an indebtedness which has been difficult to confront at the moment.

The truth being, as mentioned, it has to do with instruments often of difficult comprehension in all their implications and this explains why they can paradoxically bring to huge losses and, in the case of an economic crisis, can accentuate the systemic instability, via the tight connection they implement, between the various financial markets.

The difficulty in fully comprehending such instruments on behalf of the operators has brought about in that time, when the formers started being imported into Italy by the large Anglo-Saxon banks, the consequence that the Italian banks have paid heavy costs to their foreign counterparts before being able to somehow possess the instruments; many of them, now, together with the foreign banks, are apparently trying to carry out the same operation with the Italian public entities, after having done so with the enterprises, especially the small and middle-sized ones.

One of the problems that can emerge is that, at least in the eyes of a not-so-expert entity on the matter, the true cost of a contract can be masked by a price offered by the counterpart bank which is substantially different, and often higher than that of the market. One speaks of "implicit" costs even with regards to this.

The derivatives have often been improperly finalized towards ensuring alternative sources of liquidity of other financial advantages to the detriment of future managements: this has posed and continued to pose the need for more controls and attention, as these are products which are frequently characterized by elements of a complex and high risk.

The active debt management is a positive fact if it does not become an instrument to elude the regulation on the indebtedness of the local authorities, as it often occurs. A solution to this improper use could be that of prohibiting the use of the active debt management for the financing of current expenses.

In the case of swaps, instead, one should prohibit their use by local entities, as has been done in England and in Germany for the past 20 years as they are considered substantially speculative: the swap require decision times that are too rapid for the deliberative processes of a public entity. The example of England is emblematic as even if, it has prohibited the derivatives for local entities since 1991, and therefore not able to "play at home", the English banks have motivated the young financial promoters, through prizes, to conclude contracts on derivatives with the local Italian entities.

If one considers that many of the financial instruments have been activated by foreign banks, which obviously are not subject to controls by the Bank of Italy and sell to the Italians what cannot be sold in their own country, one can comprehend how important a government intervention is, even in this sense. In these cases, obvious problems arise regarding the contractual relation regulated by a law and by a jurisdiction different to the Italian one. As a matter of fact, the provision that the entire operation is regulated by a foreign law, implies a specific knowledge on behalf of the public body, of that particular legislation, as well as of the jurisprudence of that country, of which the rights and obligations of the contracting party can be asserted, and the contents of the clauses of the contractual regulation can actually be interpreted. Furthermore, there are obvious problems with the applicability of the safeguarding measures envisaged by the Italian legislature in favour of the financial investors to obligations borne by the brokers, as anticipated by the Consolidation Act regarding financial matters. Without neglecting that if should arise a litigation

among the parties, the public body could not resort to the Italian justice, but to the judges of another country, with subsequent heavier charges, besides the difficulty of knowledge of the relevant legislation.

The absence of market rules is not a civil fact: public budgets, like the company ones, must be clear and transparent. It is necessary to supply the local authorities with the possibility of getting out of the debt circle without resorting to new contracts, even if it means adopting deterrent methods.

The problem at the source of the derivative issue is the debt of the local authorities: the debts from investments are blocked by the cut in the transfers, one must then understand how the authorities are able to finance the investments, considering the use of the derivatives as a last resort. On the other hand, the banks have not always reacted positively towards the local authorities, who do not have expert civil employees capable of evaluating the adequacy of certain operations and who now find themselves in grave difficulty.

On the other hand, it must be clear that the derivatives, for the contractors, generate proceeds (positive fluxes) or expenditures (negative fluxes). However, it is equally appropriate to clarify that the possible expenditures on behalf of the entity which has concluded the derivative, do not constitute the "profit" for the bank, but a positive flux that compensates, in turn, similar transactions that the bank has set up to cover in turn, in being the bank, typically, a risk manager.

From 2000, for at least five years, the derivative contracts have allowed the banks to regain those margins that the traditional treasury management of the public administrations no longer offered in a period when the rates dropped. It was the swaps themselves that for the renegotiation of the interest rates opened the "hunting grounds" constituted by the debt in local entities, for the private operators. A debt always more difficult to manage for the public administrators, struggling with the progressive clampdown on central transfers and with the further restrictions to the budgets due to the Stability Pact. The proposal of the banks sounded like the classic squaring the circle, to the ears of mayors and city council members: with the swap interest rates, it appeared possible to restructure the debt, postpone the deadline (after the end of the mandate), lower the rates and, often, obtain an initial cash flow from the banks.

In synthesis, the implied critical points in the derivative contracts, and in general, in the financial operations connected to them, and which hide the cause of the heavy losses highlighted by some entities, are:

Distorted purpose. Many derivative contracts were proposed and subsequently sold to entities as coverage instruments against the risk of increase of interest rates.

These instruments should have annihilated the negative effects on the cash flows and therefore render the financial management of the debt immune to the variations of the rates. In reality, in many cases the contracts turned out to be speculative, or rather, downright bets without any aim of coverage.

Complexity of the contracts. The complexity of the formulas that defined the payments was such that it made comprehension of the contract and evaluation of its suitability in favour of the objectives of the entities, absolutely unfeasible for those not involved.

Such complexity has made both the comparison of the contractual conditions with alternative forms, and the calculus of the risk profile in terms of future cash flows, practically impossible

Lack of liquidity. The swap contracts, once stipulated, cannot generally be transferred to other subjects and can be closed and/or renegotiated only with the initial bank. The banks have taken advantage of this situation by imposing the companies with particularly penalizing closing costs and/or conditions.

Due to the high competitiveness reached in the field, the banks make most of their profits in the closing (unwinding) phase of swap rather than in the subscription phase. The entity is generally not totally aware of the unwinding conditions at the moment of the drawing up of the contract.

Absence of reference prices. The fact that the contracts are not exchanged in liquid markets implies the impossibility for the entity to have reference prices with which to evaluate the convenience in the drawing up phase and subsequently the market value during their life-span. The "structured rate", paid by the entity to the bank and often resulting from complex mathematical formulae, makes the evaluation of the value of the contract furthermore possible (fair value) only to specialized operators.

Renegotiation and coverage of the losses. The banks tend to hide from the entities the losses which derive from the contracts, in terms both of the market value (Mark to Market) and in the expected cash flows. Most of the times they propose to close the original contracts (unwinding) and to substitute them with new contracts which appropriate the negative mark-to-market. Such contracts have, however, a probability of generating negative cash flows for the entity which are higher than the previous ones. Furthermore, they are often based on a higher notional value, thereby increasing the risk exposure for the entity.

Problems subsist even with regards to the discipline of a financial character inherent to the recording and the representation of the budget of the entity. Even in relation to this profile each entity should check the procedures followed and eventually, place in being the necessary corrective interventions with the aim of rendering the effective financial situation transparent and evident, even in relation to the risks taken on with the derivative contracts.

In conclusion, it can affirm that the entities must use the swap contract carefully and in such a manner as to minimize risks and take on the advantages relative to the managerial flexibility of the debt. In particular, it is necessary to:

- a) carry out a careful examination of the reference scenario (both internal to the local authority, and relevant to the exterior, especially with regards to the expectation of the current interest rates on the capital markets);
- b) a careful structuring of the operation in coherence with the characteristics detected during the preliminary analysis;
- c) assistance/consultancy of a selected advisor (with the procedures for the choice of contractor as expected by the regulation), which does not correspond to the broker with which the operation is carried out;
- d) operate in full respect of the current regulation thereby avoiding interferences on behalf of the press or public opinion who can jeopardize a correct and orderly management of the operations.

USE AND DIFFUSION OF DERIVATIVE INSTRUMENTS

From the second half of the nineties local authorities have been resourcing to financial derivative instruments to manage their liabilities. Starting from the years 2001 and afterwards, legislators tried to avoid the assumption of excessive risks and the improper use of such instruments through a series of regulatory interventions. Hereafter the management of derivate instruments is analyzed .

At the end of the years 2000, according to official sources, the value of financial bonds, subject-matter of derivative contracts, was around 0,1 billions Euros, while at the end of 2008 the value was around 26 billions Euros.

If the existing transactions should be closed the corresponding amount that the local authorities should pay to the brokers went from about 2 millions Euros at the end of 2000, to 1,1 billions Euros approximately, at the end of the year 2008. The high level of those values and the poor connection with the course of the market rates reflects an utilization of the derivative instruments to satisfy liquidity needs, as well.

Considering the relationship between borrowing and utilization of derivative instruments, some results are mentioned with the aim to give a general idea of the actual situation of the local authorities that have utilized derivative financial instruments in Italy.

Municipalities and provinces in the grip of the derivates: the case of Pozzuoli.

The combined debt of the municipalities and the provinces, according to the survey of the "Corte dei Conti", adds up to 55,4 billions of Euros, the 57,5% (31,9 billions) of these are derivative products.

Referring to the municipalities, the combined debt adds up to 46,6 billions, of which 27,3 billions are constituted by derivate products, referring to the provinces against a debt of 8.8 billions, the derivates add up to 4.6 billions.

The following table (tab. 1) indicates the number of municipalities that have made derivative financial transitions.

In Italy on the total of 6.482 municipalities¹³⁰, around the 11,4 % of them uses derivative instruments. At the end of 2007 municipalities charged by derivatives added up to 497, with a change in percentage of 48,3 % compared to 2008. The comparison is alarming because the data of the year 2007 refer to all the region of Italy, while those one of 2008 do not include the regions of Piemonte, Trentino Alto Adige and Valle d'Aosta; the conclusion is that in one years the Italian municipalities that have subscribed derivative instruments are doubled.

At the end of last years, the local authorities that had subscribed derivative contracts with resident counterparties, were beyond 450, 32 provinces and 400 municipalities, according to official sources. It must be emphasize that the biggest local authorities frequently contact nonresident counterparties, too, whose operativeness is not registered by the head committee of risks and of vigilance.

¹³⁰ Referring to the data in this table and in following ones it must be specify that they are related to nearly all regions of Italy. Only the data of Piemonte and Trentino Alto Adige are missing, because they are to be elaborated, while in the autonomous region of Valle d'Aosta is not yet constituted the regional Section of vigilance.

	<i>Dimension of authority (resident)</i>					<i>Totale</i>
	<i>fino a 2000</i>	<i>2001 - 5000</i>	<i>5001 - 10000</i>	<i>10001 - 50000</i>	<i>oltre 50000</i>	
<i>Lombardia</i>	14	23	25	28	3	93
<i>Veneto</i>	1	12	16	30	3	62
<i>Friuli</i>	8	10	5	4	1	28
<i>Liguria</i>	1	1	3	3	3	11
<i>Emilia</i>	8	15	8	17	8	56
<i>Tuscany</i>	13	17	13	15	8	66
<i>Umbria</i>	10	9	5	8	3	35
<i>Marche</i>	3	13	8	11	1	36
<i>Lazio</i>	1	3	11	23	5	43
<i>Abruzzo</i>	10	7	4	7	3	31
<i>Molise</i>	1	3	1			5
<i>Campania</i>	1	16	15	28	6	66
<i>Puglia</i>	2	11	19	30	5	67
<i>Basilicata</i>		5	5	2		12
<i>Calabria</i>	6	10	13	13	4	46
<i>Sicily</i>	3	15	14	20	6	58
<i>Sardinia</i>		11	3	7	1	22
<i>Total</i>	82	181	168	246	60	737

Table 1 – Municipalities with existing derivative instruments (number of authorities according to the regions and the dimensions)

The above-mentioned data prove that most municipalities that use derivative instruments are in the regions Lombardia (93 authorities), Puglia (69), Campania and Toscana (66), however the phenomenon of derivatives is diffused everywhere in the country on an average beyond 43 authorities for every region.

In eighty-two local communities the population is smaller than 2000 inhabitants while in 181 ones it is between 2001 - 5000, nevertheless it must be underline that derivative instruments are concentrated for the 70 % in the municipalities with a population above 50.000 inhabitants (44,1 % of the authorities) and between 10.001 - 50.000 inhabitants (25,9 % of the authorities).

The use of so complex products by small authorities generates some perplexity; besides it is noticed the utilization of very complex types of contracts looking like exotic derivatives. These contracts connect the payments to the authority with variables as the slope of the rate curve (Steepeners), its convexity (Butterflies), the share index or commodities.

Exotic contracts often give the impression to obtain good saving on the loan rates, through several devices in the contract structure, this caused huge losses by local authorities, that payed small rates during the first years and prohibitive amounts in the following years.

Here (tab. 2) are the data referred to the municipalities of the province of Naples.

	<i>Dimension of authority (resident)</i>					<i>total</i>
	<i>till 2000</i>	<i>2001 - 5000</i>	<i>5001 - 10000</i>	<i>10001 - 50000</i>	<i>above 50000</i>	
<i>Naples</i>		2	3	13	2	20

Table 2 – Municipalities with editing derivative instruments in the province of Naples.

In the province of Naples the 21,7 % of ninety-two municipalities utilized derivatives, a higher data than the national average; particularly the 65 % of them is constituted by municipalities with the population from 10.001 to 50.000 inhabitants.

The city of Pozzuoli stipulated three contracts of interest rate swap¹³¹. The first contract, subscribed in 2005, had a national amount beyond 40 billions Euros, equal to the residual debt of the local authority towards the "Cassa Depositi e Prestiti".

In that contract, the city of Pozzuoli had "bet" that the Euribor, during the contract (for a period of six months), would have kept in a prefixed corridor. It did not happen and the loss amounted beyond 8 millions of Euros. In the 2006 this contract was substituted by a new one which aimed to avoid the losses caused by the unfavourable rate trend. This new contract would have permitted to obtain more favorable conditions referring both to the debt rate and the financial advantage by the city during the whole operation (till 2026), it would have permitted, too, to reduce the risk. In 2007, the city, to find new financial resources immediately, subscribed a third contract and postponed the problem to the following accounting periods. The contract wanted to mitigate the impact on the interest shares of the years 2007 and modified the sinking plan of the debt through a reshaping of the amortization quotas of the capital. This reshaping permitted the city to reduce the amortization quotas till the year 2023 but on the other hand these ones would become higher in the following years. Through this operation the contract would have matured in 2032, extending the average time of payment of the debt, produced higher rates on that one caused by an increase of the capital on which they are calculated.

In the first swap contract subscribed by the city of Pozzuoli there were some digital options or generally some clauses that showed its speculative nature. All that was in contradiction with the principle to hold down the financial risks of the authority and it would be an unhelped way of salvation for the city; infact administrative cases could produce the abolition of the contract not in keeping with the laws in force. Such a judgment would resolve the problems of a lot of Italian municipalities.

Digital options, having a speculative nature produce a jump in payments, when reference rate exceeds the established limit, near the strike the value of the options has high variations against low variations of the underlying.

The huge, real and potential, losses are explainable by the presence of such options, that can defeat a favourable progress of the market.

The situation of the municipalities in the province of Salerno (tab. 3) is not different from that of Naples.

	<i>Dimension of authority (resident)</i>					<i>total</i>
	<i>till 2000</i>	<i>2001 - 5000</i>	<i>5001 - 10000</i>	<i>10001 - 50000</i>	<i>above 50000</i>	
<i>Salerno</i>	1	4	5	8	2	20

Table 3 – Municipalities with editing derivative instruments in the province of Salerno.

In the province of Salerno on a total of 158 municipalities only 12,5 % has subscribed derivative instruments, in average with national data, with a peak of 40 % in the municipalities with a population between 10.001–50.000 inhabitants.

Referring to the provinces, the data (tab. 4) put in evidence that on a total of 99 authorities, in the regions like Umbria and Friuli, all the provinces are utilizing such instruments, while lower percentages can be found in the Sardinia, Tuscany and Sicily regions.

	<i>With derivatives</i>	<i>Without derivatives</i>	<i>Total</i>	<i>With derivatives</i>
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¹³¹ Corte dei Conti (2008), Regional Section of vigilance of Campania, Deliberation n. 17 of 2008.

Lombardia	4	8	12	33,33%
Veneto	3	4	7	42,86%
Friuli	4	0	4	100,00%
Liguria	3	1	4	75,00%
Emilia	4	5	9	44,44%
Tuscany	2	8	10	20,00%
Umbria	2	0	2	100,00%
Marche	2	3	5	40,00%
Lazio	2	3	5	40,00%
Abruzzo	3	1	4	75,00%
Molise	0	2	2	0,00%
Campania	2	3	5	40,00%
Puglia	3	3	6	50,00%
Basilicata	0	2	2	0,00%
Calabria	3	2	5	60,00%
Sicily	2	7	9	22,22%
Sardinia	1	7	8	12,50%
Total	40	59	99	40,40%

Table 4 - Provinces with existing derivatives (number of authorities for every region)

From the table that follows (tab. 5) it appears that, in the annual budget of 2008, the municipalities that foresaw losses related to derivative operations, are 52,5 %, that is 387 on 737, while 36,8 % of them is still considering positive the situation, another 10,7 % did not give any information. The data would show that most operations could be negative. Most authorities, that suppose some losses are in the Sardinia (72,7 %), Friuli Venezia Giulia and Umbria regions (both to 71,4 %).

	Yes	No	N.A.	Total	Yes	No	N.A.
Lombardia	42	51		93	45,16%	54,84%	0,00%
Veneto	34	25	3	62	54,84%	40,32%	4,84%
Friuli	20	7	1	28	71,43%	25,00%	3,57%
Liguria	7	4		11	63,64%	36,36%	0,00%
Emilia	18	3	35	56	32,14%	5,36%	62,50%
Tuscany	39	26	1	66	59,09%	39,39%	1,52%
Umbria	25	2	8	35	71,43%	5,71%	22,86%
Marche	26	10		36	72,22%	27,78%	0,00%
Lazio	14	17	12	43	32,56%	39,53%	27,91%
Abruzzo	16	13	2	31	51,61%	41,94%	6,45%
Molise	2	3		5	40,00%	60,00%	0,00%
Campania	31	29	6	66	46,97%	43,94%	9,09%
Puglia	33	32	2	67	49,25%	47,76%	2,99%
Basilicata	6	6		12	50,00%	50,00%	0,00%
Calabria	26	14	6	46	56,52%	30,43%	13,04%
Sicily	32	23	3	58	55,17%	39,66%	5,17%
Sardinia	16	6		22	72,73%	27,27%	0,00%
Total	387	271	79	737	52,51%	36,77%	10,72%

Table 5 – The number of municipalities that are supposing a loss for a derivate instrument

The highest negative incidence (tab. 6) can be found in operations concluded by authorities with a population below 2000 inhabitants (56,1 %), followed by those with a population between 10.001 and 50000 (54,1%). The most virtuous municipalities are those one with a population between 5001 – 10000 inhabitants.

	Yes	No	N.A.	Total	Yes	No	N.A.
<i>till 2000</i>	46	24	12	82	56,10%	29,27%	14,63%
<i>2001 - 5000</i>	95	67	19	181	52,49%	37,02%	10,50%
<i>5001 - 10000</i>	88	65	15	168	52,38%	38,69%	8,93%
<i>10001 - 50000</i>	133	92	21	246	54,07%	37,40%	8,54%
<i>beyond 50000</i>	25	23	12	60	41,67%	38,33%	20,00%
Total	387	271	79	737	52,51%	36,77%	10,72%

Table 6 - The number of municipalities that are supposing a loss for a derivate instrument (distribution according to the dimension of the municipality)

The highest negative incidence (tab.7) is registered in the authorities of the centre of Italy (57,8 %), however it must be notice that the situation is very serious in the other geographical area.

	Yes	No	N.A.	Total	Yes	No	N.A.
<i>North west</i>	49	55		104	47,12%	52,88%	0,00%
<i>North east</i>	72	35	39	146	49,32%	23,97%	26,71%
<i>Centre</i>	104	55	21	180	57,78%	30,56%	11,67%
<i>South</i>	162	126	19	307	52,77%	41,04%	6,19%
Total	387	271	79	737	52,51%	36,77%	10,72%

Table 7 - The number of municipalities that are supposing a loss for a derivate instrument (distribution according to the geographical area which the city belongs to)

The total of the losses (tab. 8) would be equal to around 69 millions Euros and the highest apart would seem to be in Campania (about 20 millions) and in Veneto (about 9,8 millions). The highest losses are supposed by the biggest authorities (more than 38 millions).

	<i>Dimension of the authority (resident)</i>					<i>(in thousands)</i>
	<i>till 2000</i>	<i>2001 - 5000</i>	<i>5001 - 10000</i>	<i>10001 - 50000</i>	<i>beyond 50000</i>	<i>total</i>
<i>Lombardia</i>	72	589	214	2713	3378	6966
<i>Veneto</i>	12	774	198	969	7925	9878
<i>Friuli</i>	64	695	145	1429		2333
<i>Liguria</i>	24	17	550		402	993
<i>Emilia</i>	54	139	25	453	315	986
<i>Tuscany</i>	85	225	388	2173	2173	5044
<i>Umbria</i>	48	113	68	532		761
<i>Marche</i>	26	415	221	3223	320	4205
<i>Lazio</i>	12		69	7050	96	7227
<i>Abruzzo</i>	45	320	14	392	888	1659
<i>Molise</i>		10	30			40
<i>Campania</i>	21	78	123	858	19469	20549
<i>Puglia</i>	17	212	240	1861	3200	5530
<i>Basilicata</i>		60	80	53		193
<i>Calabria</i>	12	30	392	642	68	1144
<i>Sicily</i>	44	183	241	418	257	1143
<i>Sardinia</i>		100	180	452		732
Total	536	3960	3178	23218	38491	69383

Table 8 – The losses of the authorities caused by derivate instruments: supposed sums

The losses of some local authorities as a consequence of having stipulated swap contracts, come from a series of natural criticalities implied in the same authorities:

Specific competences. The pricing of the swap and the derivatives, requires highly specialized competences and the considerable investments in the technology, possible only by specialized subjects. That caused an objective difficulty the advantage to subscribe derivate contracts;

The conflict of interest. The coexistence, in the same seller bank, of the roles of the advisory and the apposite party, creates an evident conflict of interest; the bank is stimulated to suggest exotic swaps with a high margin of gain, often opposite to the specific needs of the authority.

Risk management. It is necessary for the authorities the monitoring and the managing of the risk associated with their liabilities, accounting the potential losses conditionally to the worst settings, even more when they subscribe derivatives, wing to the leverage effect associated with them. An appropriate monitoring of the positions would have prevented most losses by the authorities.

Lack of control. The operations with derivatives are difficult to the check by citizens both in their nature and in their sums. This gives a lot of freedom to the local representatives, who are not aware of the loss. An independent specialized advisor could assume this purpose of control.

About that Edmund S. Phelps¹³² tells that most economists are persuaded that economy is foreseeable and understandable. But today we are seeing that this is a presumption, the financial engineering has considered subject of sure knowledge what cannot be. Phelps picks on the scholarship of the last 40 years, the so-called

¹³² Margiocco, M.(2008), "Azzerare i rischi, l'illusione di una formula magica", *Il Sole 24 ore*, March 18, 2008. It contains an accurate analysis of the questions related to the mathematics formulas and their reliability and the contrast of these latest years among the different schools of economics.

“rational expectations” full of employments in financial field and he concludes that the formula that had to spread and cancel the risks of all the investments has diffused the risk with an unstoppable series of engineering and derivate sales. The guaranteed safety has become a guaranteed loss.

In this period when the interest rates are having a high reduction and the volatility of rate curve is increasing calculating the losses that the local authorities foresee the power of renegotiation of the contracts could be exploited by the same authorities with the purpose to reduce the possible potential losses related to the contracts.

With relation to the financial structure of each derivative operation, and particularly to the variable rate borrowing, the situation of the local authorities is changed and has become more favourable to the same authorities.

The population resident in the municipalities that foresee to have losses in equal to 6.312.984 inhabitants. It can be calculated approximately the average amount of the loss for each inhabitant in the interested municipalities, that is of 11 Euros, as the following table shows.

	<i>til 2000</i>	<i>2001 - 5000</i>	<i>5001 - 10000</i>	<i>10001 - 50000</i>	<i>beyond 50000</i>	<i>total</i>
<i>North west</i>	9,4	36,8	10,3	13,6	4,4	6,8
<i>North east</i>	13,2	26,8	4,6	6,8	10,8	9,9
<i>Centre</i>	10,6	9,7	5,7	21,5	3,8	11,4
<i>South</i>	11,7	8,3	5,1	4,7	26	13,5
Total	11,1	14,5	5,9	10,5	11,9	11

Table 9 – The losses of the municipalities caused by derivates: supposed seems. (The distribution for territorial area and the dimension of the municipality)

The highest medium sum is in the municipalities between 2001 and 5000 inhabitants (14,5 Euros), the lowest a population between 5001 and 10000 inhabitants (5,9 Euros).

With relation to the provinces the exam of the data (tab. 10) shows that only the 20% of local authorities (8 among 40) supposes to suffer losses while the 65% thinks that the operation is positive and a 15% did not provide any indications.

	Yes	No	N.A.	Total	Yes	No	N.A.
<i>Lombardia</i>		3	1	4	0,00%	75,00%	25,00%
<i>Veneto</i>	1	2		3	33,33%	66,67%	0,00%
<i>Friuli</i>		4		4	0,00%	100,00%	0,00%
<i>Liguria</i>	1	2		3	33,33%	66,67%	0,00%
<i>Emilia</i>		1	3	4	0,00%	25,00%	75,00%
<i>Toscana</i>		2		2	0,00%	100,00%	0,00%
<i>Umbria</i>	1		1	2	50,00%	0,00%	50,00%
<i>Marche</i>	1	1		2	50,00%	50,00%	0,00%
<i>Lazio</i>		1	1	2	0,00%	50,00%	50,00%
<i>Abruzzo</i>	1	2		3	33,33%	66,67%	0,00%
<i>Molise</i>				0	-	-	-
<i>Campania</i>	1	1		2	50,00%	50,00%	0,00%
<i>Puglia</i>		3		3	0,00%	100,00%	0,00%
<i>Basilicata</i>				0	-	-	-
<i>Calabria</i>	2	1		3	66,67%	33,33%	0,00%
<i>Sicilia</i>		2		2	0,00%	100,00%	0,00%

<i>Sardinia</i>		<i>1</i>		<i>1</i>	<i>0,00%</i>	<i>100,00%</i>	<i>0,00%</i>
<i>Total</i>	<i>8</i>	<i>26</i>	<i>6</i>	<i>40</i>	<i>20,00%</i>	<i>65,00%</i>	<i>15,00%</i>

Table 10 – The number of the provinces that suppose a loss for the instrument

In substance, the local authorities which have ended up in the quick-sands of the derivatives during the years of reckless finance, see their long-term financial position seriously degenerated, therefore, even if in June the disbursements are less or zero thanks to the drop of the BCE and Euribor rates to which the contracts are linked, in prospective the entities will have mountains of debts.

As a matter of fact, next to an immediate benefit for the entities, brought about by the drop in short-term rates, an increase in the future feasible payments from the entity has occurred. An increase that could result absolutely current the moment in which the entity decides to extinguish the contract in advance.

A last consideration regards the sensibility of the mark to market of the swap contracts with long-term rates: it depends on the so-called duration, or rather the average financial duration of the contracts. The higher it is, the heavier the impact of the variation of the long-term rates on the mark to market.

The administrations shouldn't commit the error of being content to have a credit balance on the half-yearly coupon, thanks to the favourable trend of the reference rates, which have nothing to do with the expenditure costs, the market to market, but should proceed towards a meticulous exam of the products with the aim of closing or selling the position.

The confirmation arrives from a few concrete cases such as Telese Terme (BN), Valledoria (SS) and Recanati (MC) that closed their position at no cost or at bearable costs taking advantage of momentary drops of the forward curves and therefore of the improvement of the mark-to-market.

In all the contracts related to derivative financial operations, the choice to recede in advance, prior payment of a "substitution cost", is attributed to the public entities, the determination of which is entrusted to the intermediary, without the specification of precise parameters, except for a generic reference to objective criteria.

The clause, considered to be the nature of the contract, its long duration and the particular quality of the public entity that is administered by subjects that manage public resources presents profiles of a particular criticality since it should be formulated envisaging precise parameters.

It is true that it deals with the application of discounting-back of the expected financial fluxes in relation to the variation of the rates, but on account of the uncertainty of the financial markets and the nature of the public entity, both the minimum and the maximum limits of the possible cost that the entity is taken to bear in the case of anticipated dissolution of the contract, are clearly determined at the signing of the contract.

The public entity that intends to proceed with the termination of the contract cannot limit itself to taking into consideration the overall gain possibly achieved or the heaviest loss possibly envisaged, but must carefully evaluate with full knowledge of the facts, which were the elements taken into consideration by the intermediary to determine the cost of substitution, or similar, and where there is a dispute in the calculation of the parties, it will be necessary to turn to the judiciary authority with the aim of determining the sum effectively given from one party to the other.

CONCLUSIONS

Use of derivative contracts can offer local authorities a guarantee against some financial risks (especially fluctuations of interest rates) and facilitate debt management.

In the first place, they produce immediate benefits to which, however, correspond strong risks of future heavier charges; such risks, moreover, are often of a difficult quantification, due to the frequent complexity of the derivatives, which makes the management on behalf of the (not always qualified) local civil employees, arduous; furthermore, the destination of the liquidity prizes, which are nearly always used to meet operation expenses, is problematic.

However, as dealing with complex financial instruments, assessable with difficulty especially by the smaller entities, their use can determine a significant increase of the financial charges and a reduction in the transparency of the public accounts.

But the worrying factor is, also, the distorted use of the derivative instruments: many local authorities which have carried out operations on the derivatives, of many local authorities that have carried out operations on the derivatives, only a very limited number has turned to them according to the original functions, tied exclusively to forms of tax risk coverage, whereas the remaining part utilizes the derivatives to remodulate the debt with the aim of reducing costs, or as a form of financing, via use of up-front, thereby ending up, as a matter of fact, bearing all the risks of these instruments.

The budget restrictions imposed by the regulations, the continuous limitations to the transferrals of government finance to local finance, constitute the entirety of the causes which have induced many local administrations to search for solutions as innovative as they are risky, to face their own financial necessities.

A careful analysis has highlighted various critical points which have been analysed under different points of view and to retain that the main cause that pushed the administrators to subscribe to such contracts was the possibility of recovering resources to reinvest and to postpone to the future possible problems connected to the excessive RICORSO to indebtedness.

At this point, it is admissible to ask oneself if the administrators have an administrative responsibility and must answer for their conduct not only to the citizens but especially to the competent bodies and if in their regards such actions are taken that make administrators in the future, in general, more careful towards the budget and squandering.

The administrators, especially the mayors, from their part, have the extenuating circumstance, that in the past years the decrease of the income and the restrictions of the Stability Pact have induced them to search for new sources.

The derivative instruments suited their purposes, in so much that on one hand they should have had to guarantee them from an increase of the interest rates and on the other find new resources essential for the smooth-running of the public administrations.

The current difficult situation is due to, firstly, the absence on behalf of the public administrations of adequate professionalism to carry out sophisticated financial operations; the evaluation of the structure of an operation, the calculus of the swap mark to market, the analysis of the contractual clauses, of the possible implicit costs and of the associated risks, require competences which are difficult to find in the local authorities.

Furthermore, the civil employees tend to think that the operation terminates with the signing of the contract, neglecting the importance of a continuous monitoring of the trend of the rates and the opportunity of renegotiating the same operations.

Considering that the swap is a zero-sum contract, or rather, the loss for a contracting party is compensated by the gain for the other, in the relation with the Credit Institutions a public administration finds itself in an unfavourable position.

Facing these difficulties, the local authorities tend to turn to an advisor, typically a broker. This phenomenon amplifies the risks of the operation, as often the advisor takes on directly, or more often, via a controlled institute, even the position of counterpart with which the body stipulates the contract, thereby generating a dangerous situation of conflict of interests.

It has been found, that in the local authorities there is an excessive trust in the Credit Institutes, some of which have adopted an opportunist behaviour, exploiting the asymmetry of competences to their own advantage.

The current situation is not to be attributed solely to the administrators but also to the Government who has done nothing but push the territorial authorities towards more complex instruments with the conviction that they are capable of managing them in an autonomous manner, and without arranging an inspection at

the source of the undertaken operations, especially the financial ones, and above all their continuous supervision.

Furthermore, the tightening of the rules has brought more disadvantages than reasons for optimism for the local finances: externalization in strong growth, distorted use of the derivatives and excessive recourse to urbanisation charges and project finance instruments.

It is not sufficient to verify if the instrument is conformable to the law, but it is necessary to understand which is the connected underlying, the implicit costs and the possible probabilities of substitution or extinction in the case of a negative trend.

The intervention of the administrator in such a mined territory should have been quicker. We must not forget that the first big bankruptcy case due to an incautious use of derivatives regarded a local American authority, Orange County, who due to the derivative financial products in 1994, lost 1,6 billion dollars.

There is a common fear that many horses have already bolted and that some problems are about to arise. Even a swap from fixed to variable rate is an operation that should be surrounded by the same caution and by the same checks with which one looks at the assumption of a debt.

Many of these operations have produced more advantages for the counterpart than for the entity. The only criteria used has been that of hedging, in the shortest time, the interest charges, totally disregarding the encumbrance or how much risk would be left for the future managements and above all without remembering a hard and fast law of the market.

In trying to free oneself from the situation by closing the contract at the current market conditions, one must be cautious as this approach could turn out to be counterproductive. As a matter of fact, one risks paying other implicit commissions to the banks, probably even higher than those already paid on the date of signature.

In the first place, before taking decisions, it is appropriate to evaluate which are the effective risks of the contract, or rather, which exposure it gives with respect to possible disbursements in the future, until expiry. Here it is appropriate to carry out an analysis to identify and evaluate the consequences of the worst case scenario, or rather, understanding what is the maximum loss that one can reach under the scenario of the most unfavourable rates evolution for the entity. If the worst case scenario is financially sustainable, it would be better to maintain the derivative in portfolio. Otherwise, it is necessary to bring about some changes to make the risk "sustainable".

Some "solutions" can be assumed.

In the first place, the necessary ex-ante evaluation of the risk of the derivative is to be hoped for, so as to know the loss towards which the entity is going and not only to establish the effects ex-post. Therefore, proceed however possible towards discounting back the losses or the proceeds. Naturally, seeing the uncertainty of the rates, one needs to establish a maximum acceptable loss (or threshold) before which the contract can be extinguished without costs. In the financial practice, there exists the so-called mutual terminal clause according to which both parties can establish to extinguish the derivative, at any time, whatever its mark to market is.

Secondly, it may be useful to envisage that the negotiation of such instruments is connected to a predefined period of time: at the most two legislatures, or rather the temporal period within which the administrators are responsible for the "internal" management and have effective "responsibilities" (even electoral) towards the administrative community. Besides this, , as influential experts suggest, the constitution of a purchasing centre of the financial resources could be surmised: the legislator could constitute a centre in which the local authorities are obliged to request consultancies and evaluation in resorting to financial instruments. A less binding alternative, could be represented by the voluntary consortium (envisaged by the Consolidation Act on the local authorities: Legislative decree n. 267 dated 2000, article 31) to carry out a consultancy in the exclusive interest of the local authorities themselves.

Lastly, it is necessary to further involve both the board and the district council of the authority, and not only the person responsible for the financial services, thereby creating a virtuous circle of responsibility and transparency. It is necessary, therefore, that the council resolution contains an indication of the main obligations and financial restrictions that the authority intends to take on, both because the chosen operative method can condition, for a long time, the possibility of use of the resources of the body, and therefore of the administrated community. If then, there are changes that have as an object elements of a substantial type, as it so happens, for example, where the curves of the rates applied in the contract are changed, the decision cannot be only of the person responsible for the financial services, but of the council or the board.

However, we cannot forget, when dealing with local finance, the hurdles still to overcome, regarding the separation between politics and administration, or neglect the delay in implementation of the system of internal controls: all details of the fragility and instability of the local administrative apparatus, that is not capable of responding and elaborating the complex phenomenon of derivatives.

It would be more logical, then, to bear in mind the "transalpine" experiences, which are orientated, in one way (in a jurisprudential manner in the UK) or another (with an administrative circular in France) to exclude the use of the derivative instruments, because "speculative". Of little worth, therefore, all the relative regulation dispositions, when it is of common knowledge that such instruments are risky and therefore not adaptable to an already "vacillating" context.

Furthermore one could proceed and entrust the present and future management to an only subject, such as the "Cassa Depositi e Prestiti", that has all the competences to provide consultancy for the present as well.

The "Corte dei Conti" seems to be the only institutional organism to have the power to put a stop to this improper use of the resources, however, the problem of the derivatives of the local authorities is accompanied by a public debt of the Government among the highest of the western countries.

A centralized negotiation on behalf of the MEF (Ministry of Economics and Finances) would be necessary with the intermediary institutes of the derivatives undersigned by the local authorities, (avoiding that an asymmetrical briefing among the intermediaries and the weaker entities comes about) for a payment of the debts on the derivatives extended in time, even by creating a fund on the model of the "bad bank" in which these "toxic" assets are moved, thereby avoiding that the accounts of the local authorities are bound by these debts for years.

Considering that the near totality of the financial instruments collocated to local authorities, came about on behalf of 8-9 intermediaries, the Government could negotiate an only solution to the derivative problem for all entities, maybe by extending the debt (in 50-70 years), thereby avoiding market rates, and that these local authorities are obliged to declare the default.

The government should, also, impose by law the ban of subscription to high-risk financial instruments on behalf of the local authorities (including the corporate bond), imposing the subscription to fixed-rate loans.

The point is that the increase in the demand for services and the decrease of the transfers are confronted with managerial innovations.

These, to be so, necessitate structural reforms of the public administration (such as the possibility to fire, transparency, accountability, etc.).

Not confronting these issues is an incentive for creative finance.

Today it is possible to ban derivatives, but tomorrow, without reforms, other creative and costly solutions will be found.

Now, faced with these derivative instruments which have been created to cover risks, and which have ended up amplifying them, one must not discriminate in attributing to other financial instruments the same negative value of the derivatives.

As a matter of fact, it is necessary to bear in mind that, in facing bad practices, represented in most cases by derivatives, which have not always provided the results hoped for by the local authorities (partner,

maybe, also the current crisis on the financial markets), regulatory speaking, other categories of instruments have been created, and that have given a strong contribution to the development and growth of competitiveness at a local level such as: bonds, project finance, the securitization of credits and assets and the different lease-back operations.

Practically, not everything that has to do with finance is negative; the contrary is true: the finance instruments, if managed in an attentive manner, enclose immense possibilities for the entities and for the territory of reference.

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THE OPTION EFFECT OF ECONOMIC DEVELOPMENT IN NORTH CYPRUS

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Purpose: To explain the wide-spread under-investment in north Cyprus, especially infrastructure such as electricity and water supply.

Methodology: Considering the real option effect in business investment under the conventional cost-benefit analysis.

Findings: Due to the uncertain nature of north Cyprus' future geo-political status, any foreign investment must not only pass the conventional cost-benefit analysis, but also overcome a significant mark-up in net benefit before it can profitably go ahead. This is because potential investors could stand to lose a large amount of initial capital outlay if political situation were to deteriorate. The ability to avoid this has an intrinsic value (option value). This must be overcome by any profitable investment. Hence, the presence of wide-spread under-investment in the small-island economy. This is especially so in infrastructure such as electricity and water supply.

Originality: A first attempt to explain the lack of investment in north Cyprus using real option analysis.

Key words: Cyprus, option, investment, uncertainty.

INTRODUCTION.

Foreign direct investment (FDI) is crucial to the economic development of a region. Not only will the business participants of the direct project investment benefit, but also the supply chains and the economy as a whole. This is the multiplier (trickle down) effect (Parkin, 2005). In north Cyprus, economic development faces a number of significant hurdles. These are largely related to the uncertain nature of its future geo-political status regarding a Cyprus reunification. There are prominent cases around the world where a political settlement could quickly remove this uncertainty. The idea is that once the uncertainty is removed, businesses spring up. Jobs are created and FDI follows. The resulting economic development is the so-called peace dividend (Dunne and Coulomb, 2008). For example, following its re-unification, Germany recorded a jump in FDI from 0.079% of GDP in 1988 to 0.518% of GDP in 1989. The German GDP growth increased to 5.255% in the following year (from 3.896% in 1989). The Czech and Slovak Republics, following their decoupling (happy divorce), turned their GDP growth around from -11.612% and -14.574% in 1991 respectively to a stunning 5.945% and 5.843% respectively in 1995. Slovenia, after its independence from the ruins of the Balkan conflict, saw their GDP growth increase from -8.900% in 1991 to 5.327% in 1994. Its FDI doubled to 1.650% of GDP in 1997 and further increased to 7.193% in 2002. (World Development Indicators, 2007).

For Cyprus, The Peace Research Institute of Oslo (PRIO) calculated that the annual peace dividend in terms of boost to business would amount to EUR 1.8 billion euros (10% GDP by 2015). This translates to EUR 5,500 per household per year (20% of salary in the south and 40% in the north). This peace bonus could double if we added the potential benefits of the implementation of the Ankara Protocol and business generated from the Baku-Ceyhan oil pipeline. (Mullen, Oguz and Kyriacou, 2008)

However, before this peace dividend can be enjoyed, uncertainty must be removed. It is this uncertainty that hinders business investment. This had led to the wide-spread under-development in north Cyprus. The reason is the following. Under pervasive uncertainty, real option theory suggests that any foreign investment in north Cyprus must not only pass the conventional cost-benefit analysis. It must also overcome a significant mark-up (option value) in net benefit before it can profitably go ahead (Dixit *et al*, 1999)

This wide-spread under-investment in the small-island economy is especially acute in infrastructure such as electricity and water supply. As long as foreign investors are holding the development option, they will adopt a wait-and-see attitude towards north Cyprus. Potential investors could stand to lose a large amount of initial capital outlay if political situation were to deteriorate. The ability to avoid this has an intrinsic value (McDonald and Siegel, 1986). This must be overcome by any profitable investment. On the other hand, by

not investing today, potential investors lose the immediate benefits of investment projects (periodic cash inflows from sales, etc.). They will also forgo the upside in their investment value should there be a satisfactory political resolution.

As with financial call options, an increase in the volatility of the underlying instrument (i.e., political situation) raises the value of the option (Baily, 1995). This makes foreign investors more reluctant. On the contrary, an increase in the rate of return of the underlying instrument (i.e., business profits) suppresses the value of the option. This entices investors who fear missing out on profitable business ventures. It partially explains the "property boom" in north Cyprus over the past few years.

In the next section, we explore the theoretical aspects of the real option in investment and its application to north Cyprus. Note that the option here does not mean various investment options such as a hotel project or sea water desalination plant. Rather the option here refers to whether investment should go ahead or not. The paper then examines policy implications due to the presence of this investment option. We conclude with a few remarks.

THE OPTION TO INVEST AND ITS EFFECTS

We begin with a simplistic investment project. It generates cash flow R in each time period after implementation at an initial cost of C . Then the total net present value (NPV) of the project is:

$$NPV = \frac{R(Y)}{r} - C \quad (1)$$

r is the discount rate. R is a function of Y – north Cyprus's economic output. It is natural to assume $R'(Y) > 0$. When NPV exceeds a certain threshold NPV^* (to be determined later), the investor will go ahead with the project. In the traditional cost-benefit analysis, $NPV^* = 0$. Before the investor invests, he retains the option of doing so. Suppose the cash flow stream R depends on the economic output Y of north Cyprus. Assuming Y evolves stochastically over time with a steady rate of change of α . However, Y is also subject to an instantaneous standard deviation σ . This can be due to, say, unforeseen developments in the Cyprus settlement solution. In other words,

$$dY = \alpha Y dt + \sigma Y dz \quad (2)$$

dz follows a standard Wiener stochastic process. Equation (2) is a geometric Brownian motion (Harrison, 1985) in Y . It enters into the individual's investment calculus in the following way. When the economic output $Y > Y^*$, the project's NPV hits the threshold level NPV^* . The individual decides to invest. Otherwise he stays put. By doing so, he gives up the cash flow stream R which is growing in tandem with the economy's growth rate α . However, he retains the option to invest should a settlement solution be satisfactorily found as a result of some unexpected events σ . On the other hand, suppose he invests and the settlement process suffers as a result of future deteriorating political climate. Then his cash flow stream R will drop precipitously on account of the ensuing economic recession. The ability to avoid this and retain his investment option has an intrinsic value. This should enter his NPV in equation (1). As with financial options, the larger the volatility σ (or growth rate α) in economic output Y , the higher the value of this option. Then it will be less likely for this individual to invest. Algebraically, we can represent the value of this investment option by $F(Y)$. Its behavior follows the differential equation:

$$\frac{1}{2} \sigma^2 Y^2 F_{YY} + \alpha Y F_Y - r F = 0 \quad (3)$$

r is the no-arbitrage equilibrium discount rate (Harrison and Kreps, 1979). Equation (3) can be derived as follows. A small random change in Y , dY , over dt results in a small expected NPV change of $E[F(Y + dY)]$. This can be discounted back to t using the discount rate r , i.e., $F = e^{-r dt} E[F(Y + dY)]$. Note that $e^{-r dt}$ is approximately $1 - r dt$. $F(Y + dY)$ can be expanded by Ito's lemma (Dixit et al, 1999). On re-arranging, we have (3). (3) can be solved by the method of undetermined coefficients:

$$F(Y) = AY^\beta \quad (4)$$

A is a positive undetermined coefficient. β is the root of the characteristic function:

$$\frac{1}{2} \sigma^2 \beta (\beta - 1) + \alpha \beta - r = 0 \quad (5)$$

β has a bigger-than-1 root and a negative root. The latter is discarded since the value of investment option $F(Y)$ should increase with economic output Y . Now, the project's NPV before investment consists entirely of the value of the investment option, AY^β . Suppose the economic output Y hits the threshold Y^* . That is, when the project's NPV hits NPV^* , the investor invests (exercises option). We have

$$AY^\beta = \frac{R(Y)}{r} - C \quad (6)$$

This is the *value-matching condition* (Dixit and Pindyck, 1994). The *smooth-pasting condition* dictates that the derivatives with respect to economic output Y on both sides of equation (6) must be equalized:

$$A\beta Y^{\beta-1} = \frac{R'(Y)}{r}$$

This gives, on re-arranging,

$$AY^\beta = \frac{YR'(Y)}{r\beta} \quad (7)$$

Note that Y^* must be big enough so that the threshold NPV^* covers the investment option value before the individual invests:

$$\begin{aligned} NPV^* &= \\ &= \frac{R(Y^*)}{r} - C - AY^{*\beta} \end{aligned} \quad (\text{using (7)})$$

$$= \left\{ \frac{R(Y^*)}{r} - \frac{Y^* R'(Y^*)}{r\beta} \right\} - C \quad (8)$$

To simplify our analysis, let us assume $R(Y) = k Y$. That is, the project's cash flow stream is a direct proportion of economic output (Silberberg and Suen, 2001). Then (8) can be simplified to:

$$NPV^* = \frac{kY^*}{r} \left(\frac{\beta - 1}{\beta} \right) - C \quad (9)$$

The factor $(\beta - 1)/\beta < 1$ is called the option value multiple. As a result, the original cash flow stream $k Y$ must be scaled up to $k Y \beta / (\beta - 1) = k Y^*$ before the project can go ahead. Suppose the individual would consider investing when economic output was Y in the absence of this option. With the option, Y will have to be larger at Y^* to induce investment (since β is larger than 1). Moreover, the characteristic equation (5) indicates that the β solution is decreasing in σ^2 or α but increasing in r . Thus, the threshold Y^* or NPV^* is increasing in σ^2 or α but decreasing in r . For example, a high σ^2 means more volatile economic conditions. The investor will do well by holding his investment option or requiring a higher threshold Y^* . This is because he could stay put should politics deteriorate, or invest *vice versa*. In other words, he suffers no loss if he does not exercise his investment option (option out of money). On the other hand, he stands to gain big if he does exercise his option (option deep in the money).

When the rate of return on investment (the discount rate r) is high, the project's cash flow will increase fast. The investor will do well by executing the project right away. Hence, the option to invest loses its value. Y^* or NPV^* decreases accordingly. This is a partial explanation of the recent property boom in north Cyprus. When the property sector is doing well, investors do not want to lose out and participate in construction and development projects. The option to wait on these projects has diminished value. Hence, the propensity to hold on to this option vanishes.

POLICY IMPLICATIONS FOR NORTH CYPRUS

It is often said that little can be done by Turkish Cypriot authority about lessening the political uncertainty. However, there are functions within north Cyprus's internal control that can be made less uncertain. For example, underground water can be prevented from being contaminated by septic tanks. Potable water is largely supplied by water trucks and underground water pipes. However, underground water is often used additionally. Although not for drinking purposes, it can often be used for cleaning and washing, e.g., vegetables. Underground water is often found next to septic tanks of houses. Due to seepage, it is very often contaminated, resulting in diarrhea or more serious health problems. Immediate possible solutions can include purification, underground water table survey, or building instructions regarding location of septic tanks.

Electricity supply should also be made more reliable to reduce blackouts or brownouts, or shorten outage period. Better-quality roads and streets, e.g., road signs, street lamps, asphalt, traffic lights, etc. can also be considered. Telecommunications technology can be upgraded through broadband, wireless connection, etc. Perhaps investment in a business exhibition and convention centre may entice potential investors. Better healthcare provision can also be considered. The recently completed new state hospital in the Famagusta district is a step in the right direction. Funding from Turkey and the EU ought to be directed towards these activities.

Financial services provision can play a significant role in removing much uncertainty. For example, loan approval can be speeded up by the north Cyprus central bank or commercial banks for investment projects. These can include roadwork, bridges, sanitation, garbage tip sites, parks, children's playgrounds, sports amenities, etc. At the same time, bureaucratic red tape for new business registration or renewal should also be reduced. All of these activities are conducive to a better foreign investment climate.

CONCLUDING REMARKS

The whole island of Cyprus is considered by the European Union to be a member. However, the economic development of north Cyprus is hindered by the uncertain nature of its future geo-political status. As a result, any foreign investment must not only pass the conventional cost-benefit analysis. It must also overcome a significant mark-up (option value) in net benefit before it can profitably go ahead.

The reason for this is because foreign investors (apart from Turkey and EU funding) are largely holding the development option. They will adopt a wait and see attitude towards north Cyprus. Potential investors could stand to lose a large amount of initial capital outlay if political situation were to deteriorate. The ability to avoid this has an intrinsic value (option value). This must be overcome by any profitable investment. Consequently, there is wide-spread chronic under-investment in the small-island economy. This is especially problematic in infrastructure such as electricity and water supply.

An increase in the volatility of the political situation raises the value of the investment option. This makes foreign investors more reluctant. On the contrary, an increase in the rate of return of potential business profits suppresses the value of the option. This entices investors who fear missing out on profitable business ventures. By not investing today, potential investors could lose the immediate benefits of investment projects (periodic cash inflows from sales, etc.). They might also miss the upside in their investment value should there be a satisfactory political resolution. This, together with a rising population and the Cypriots' propensity toward home ownership, partially explains the recent "property boom" in north Cyprus.

There are immediate policy implications drawn from the theoretical discussions. Foreign direct investment abhors uncertainty. Political uncertainty regarding Cyprus reunification cannot be easily removed. However, there are functions within the Turkish-Cypriot authority's control that can be made less uncertain. For example, prevention of underground water contamination, reliable electricity supply, quality roads and streets, upgrading telecommunications technology, a business exhibition and convention center, better healthcare and financial services provision, and removing bureaucratic red tape. All of these activities are conducive to a better foreign investment climate in north Cyprus.

Ultimately, removing the political uncertainty regarding a Cyprus reunification is the best enticement to FDI. Mullen *et al* (2008) estimated that the peace dividend in the form of investment in construction and real estate, tourism, tertiary education, accounting and legal services, and exports such as pharmaceuticals would amount to 1.8 billion euros annually (10% Cyprus GDP by 2015). This figure would double if we added the Ankara Protocol and Baku-Ceyhan oil pipeline business.

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DETERMINANTS OF SOCIALLY RESPONSIBLE MARKETING DECISIONS

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Purpose – Marketing as a social and management process can improve the well-being of consumers and other stakeholders. In order to improve consumer well-being, it is necessary that managers make decisions in a way that each of them is viewed through the prism of ethics and social responsibility. However, the question arises: what are the factors that influence the implementation of ethics and social responsibility in marketing decision-making process. The aim of this work is to determine the factors that affect marketing decisions that are consistent with the principles of ethics and social responsibility.

Design/methodology/approach – Based on the theoretical background several hypotheses that assume the impact of individual and organizational factors on the adoption of marketing decisions are set. They are tested on a sample of the most successful Croatian companies. The survey instrument included the original scale „Socially responsible marketing decisions“.

Findings – It was found that the socially responsible marketing decisions are determined by individual and organizational factors. A positive relationship between the perceived role of ethics and social responsibility in achieving business performance and socially responsible marketing decisions is established. In addition, there is a connection between stakeholder orientation of the company and socially responsible marketing decisions. The impact of the code of ethics and foreign ownership on ethical marketing decisions was established.

Practical implications - Based on the research results it can be concluded that the application of ethics and social responsibility in marketing is under the influence of different factors. Some can be controlled, but some are out of the control of managers.

Originality/value – The study whose results are presented is based on the application of the original scale “Socially responsible marketing decisions”. The correlation between the perception of the importance of ethics and social responsibility in achieving business performance and application of ethics in making marketing decisions is established.

Keywords – Social responsibility, marketing ethics, consumer well-being, QOL marketing, Croatia, economy in transition

Paper type - Research paper

INTRODUCTION

Marketing is traditionally considered to be a business orientation which meets the consumers' needs and also accomplishes the company's goals. By implementing the marketing concept positive effects are achieved at both micro and macro level. Positive effects on the micro level are seen in satisfying the needs of the target market and the company's goals, while the effects of marketing on the macro level can be seen in the transfer of goods, services, capital and knowledge, so that we can consider marketing to be an important economic process. Yet, in recent decades marketing experts are faced with numerous challenges from the environment. Occurrences in the environment manifested as exhaustion of non-renewable energy resources or environment pollution, or social occurrences such as illiteracy, materialism and socially unacceptable behaviour such as inclination towards alcohol and drug abuse, represent additional challenges for marketing experts. They are becoming more and more aware of the responsibility they have towards the consumers and the society on the whole. That is the reason why there is more talk in the marketing theory and practice about implementing the principles of ethics and social responsibility in doing business.

Social responsibility and ethics in doing business can be manifested in many different ways; moreover they should be seen in everyday work. Marketing experts in the strategic marketing management and deciding on products, prices, promotion and distribution should make decisions taking the principles of ethics and social responsibility into consideration and avoid activities which encourage undesirable behaviour. In such a way one can enhance the consumer well-being and the quality of life of other stakeholders.

Yet, the research question is raised: what does the socially responsible decisions in marketing depend on? In order to find the answer to this question an analysis of the literature and a field research has been done. The results are represented in the following parts. In the first part of the paper there is a brief presentation of the theoretical background from which the research hypotheses are developed. Second part refers to the methodology, followed by the results of research and conclusions. In the end the limitations of the research are stated, as well as recommendations for further research.

THEORETICAL BACKGROUND AND HYPOTHESES

During the last decades the fact that the consequences of marketing activities of a company cross its boundaries and reflect upon the environment where its work has been more and more stressed in the developed market economies. In the conditions when the company's activity is under scrutiny of the internal and external stakeholders a manager is expected to have sensitivity for the social processes in the environment, as well as a high level of social responsibility in decision-making process. Business goals can be realized in many different ways, but nowadays is necessary to respect the principles of ethics and social responsibility in doing business, as well as to satisfy the interests of different stakeholders. Implementation of ethics and social responsibility in marketing is realized by accepting the philosophy of Quality-of-life marketing. Sirgy defined the Quality-of-life as a "business mechanism that plans, prices, promotes, and distributes economic consumer goods to consumers in ways to maximize consumer well being" (Sirgy, 2001, p. 8). According to the contemporary view the Quality-of-life marketing refers to any good (economic or non-economic, consumer or industrial) service or program (Sirgy, 2001, pp.10 – 11). That is why the Quality-of-life marketing can be regarded as a specific form of thinking and doing business connected to production, delivery and consuming of products, services, ideas and programmes, their promotion and setting the prices which contributes to the improvement of living conditions in a certain environment on the long term and at the same time meets the needs of the target markets and other stakeholders with minimizing the unwanted side-effects. This is a specific business philosophy and strategic orientation which is based on the principles of ethics, social responsibility and stakeholder theory. The Quality-of-life marketing as a philosophical but also a strategic approach is put into practice by making decisions based on ethical principles. The task of the company is the development of products, services and programmes which can improve the consumers' well-being and to deliver these products in the way which would minimize the negative side effects to target consumers, as well as to other public with simultaneous generating of a long-term profit (Sirgy and Lee, 1996).

In order to achieve positive effects on the consumer well-being marketing managers should make decisions having in mind the possible negative consequences. These marketing decisions refer to setting goals and formulating strategies and tactics. The starting point is determining the dimension of consumer well-being on which the organization is likely to have impact (Sirgy and Lee, 1996). After that, the marketing experts make a series of decisions regarding the marketing mix. All decisions should be considered from the stakeholders' point of view as well. It should be analysed whether a certain decision improves the consumers' well-being and whether it has negative effects on the consumers and other stakeholders.

Yet, the question is raised which factors influence the socially responsible decision making in marketing? According to Robbins ethical or unethical behaviour is under the influence of individual characteristics, structural variables and organizational culture (Robbins, 1991, p.134). Ford and Richardson (1994) divided the factors which influence moral behaviour into two groups: individual and situational factors. Individual factors refer to those given by birth such as gender and age, and factors which are the result of experience and socialization such as education, personality and attitudes. Lee and Sirgy (2004) consider the implementation of the Quality-of-life philosophy, which represents the implementation of ethical principles in marketing, to be possible with three groups of assumptions which reflect the factors from the environment, organizational and individual factors. The factors from the environment are social sensitivity regarding the consumer well-being and predominant ethical climate in business. Organizational factors which influence the implementation of the Quality-of-life marketing are the level of organizational ethics and the long-term orientation of the company. Individual factors are connected to moral idealism, a caring

relationship to the environment and autotelic personality characterized by enthusiasm and intrinsic motivation.

So, a larger number of authors consider that the guidelines of ethical and socially responsible behaviour in doing business, which refers to marketing as well, are connected to the managers' characteristics and conditions from the environment. Making the marketing decisions is in the managers' domain, so it depends on their system of values and moral principles. This is confirmed by Pini and Carolli (2004) who established that the managers' moral characteristics influence the accepting of social responsibility. Frederick, Post and Davies (1992) also stress personal values and the managers' moral as an important guideline of ethical behaviour in doing business. When the behaviour in certain business situations is not determined by the rules or procedures, the critical factors which the decision-making depends on, refer to the managers' individual characteristics. Singhapakdi et al. (1996) claim that "marketers must first perceive ethics and social responsibility to be important before their behaviours are likely to become more ethical and reflect greater social responsibility." This perception depends on a number of factors such as cultural differences, economic and legal/political environment, organizational ethical climate and gender (Singhapakdi et al., 2001). Taking that into consideration we can conclude that the manager's attitude regarding the importance of ethics and social responsibility in doing business is important for moral behaviour in marketing decision-making. Those managers who consider ethics and social responsibility important for business success in the long term will probably make such marketing decisions which will improve the consumer well-being, as well as the well-being of other stakeholders. Therefore we can set the hypothesis **H1: The perception of the importance of ethics and social responsibility in achieving company's effectiveness has a positive impact on socially responsible marketing decisions.**

Social responsibility is under the influence of different organizational factors, especially organizational culture, which should support the stakeholder orientation; not only owners and consumers, but also employees, creditors, suppliers and the population in the community. Those companies that tend to socially responsible doing of business set such goals, implement strategies and make marketing decisions by which they can increase the consumer well-being and minimize the negative effects upon other stakeholders. According to the above, we can set the hypothesis **H2: Respecting the interests of a larger number of stakeholders is in a positive interaction with socially responsible marketing decisions.**

Formal rules and regulations also influence the role of ethics in decision making. They help managers and employees to clear the ambiguities in decision making process. Although the existence of the code of ethics in doing business is not a guarantee that it would influence the marketing decisions, it confirms that there is a positive attitude in the company which supports socially responsible decision-making. That is the reason why the hypothesis **H3 is set: Those companies which have a code of ethics achieve better results on the scale of socially responsible marketing decisions.**

According to the research of Singhapakdi et al. (2001) the perception of the importance of ethics and social responsibility in achieving organizational efficiency depends on cultural, economic and legal/political environment. Bagić, Škrabalo and Narančić (2006) did a research on social responsibility in companies in the Republic of Croatia; a country in the process of transition from planned to market economy. It was established that the factors which influence the social responsibility in Croatian companies are the ownership structure, the leadership abilities, the size of the company and the economy sector. Companies in private ownership tend to a speedy introducing of efficient management systems because they are more market oriented and have a simpler procedure of decision-making process. Foreign ownership has also a positive influence, whereas companies in domestic ownership show a greater interest in cooperating with domestic suppliers. The managers' leadership abilities which cause the employees' confidence, such as personal engagement, interests and charisma, have a great importance for introducing changes in the management processes, as well as for promotion and spreading of the information about the social responsibility of the company. The authors established that implementing a socially responsibility is most widespread in larger companies, and small and medium-size companies regularly invest into the well-being of the local community. Although dominant fields of social responsibility, such as human resources development, investing into the community and environment protection are present in all economy sectors,

it was noticed that the services' sector, especially banks, use more often the social responsibility with the purpose of public promotion. On the other hand, companies from the industrial sector invest more into managing the waste material, ecologically efficient technologies and collective negotiation. According to the above, two hypotheses have been set:

H4: Socially responsible marketing decisions depends on the ownership structure; Managers employed in companies in predominantly foreign ownership achieve better results on the scale of socially responsible marketing decisions.

H5: Socially responsible marketing decisions depend on the size of the company; Managers employed in large companies achieve better results on the scale of socially responsible marketing decisions.

The hypotheses set are verified on the sample of Croatian companies and the results are represented in the following part.

RESEARCH METHODOLOGY

Sample

The research was done on the sample of companies in the Republic of Croatia. The companies were chosen from the list of 500 largest Croatian companies according to the amount of added value in 2006, reported by the Financial Agency (FINA, 2006). The respondents were persons who do the marketing tasks regardless whether they are employed in the marketing department or other departments in case there is no marketing department. During the research preparation it was established that in some companies there had been some organizational changes, so the final number of companies included in the sample was 481. The data gathering was done by e-mail in the period from 20th July to 20th December 2007. After two waves of telephone follow-up 109 questionnaires were gathered, which gives 22.66%

Among the respondents those from large companies prevailed (77.8%), then came those from medium-sized (19.4%) and from small companies (2.8%) according to the criteria of the number of employees. 50.9% of respondents were female and 49.15% were male. More than two thirds of the respondents had a university education (68.5%), 21,3 % had master's degree or Ph.D., and only 10.2% of the respondents had finished high school. More than half of the respondents were employed at a middle level of management, there were 29.6% of marketing managers, 27.8% of managers in other departments in the company, 5.6% of top managers, 18.5% of managers on lower levels in the company and 18.5% of the employees. In the sample 25.2% of respondents were under the age of 30, 34.6% were from 30 to 39 and 40.2% were people over 40.

Measures

The data were gathered by a questionnaire which had one measurement scale known from the literature and the original measurement scales. The basis of the research is the scale of socially responsible marketing decisions. As there was no reference to an appropriate scale by which one could establish in which measure the decision makers implement the principles of social responsibility with the goal of developing the consumers' well-being, and in accordance with the paradigm of Quality-of-life marketing, a new measurement scale was developed (Lončarić, 2009). In the first phase 16 statements were generated; they refer to the socially responsible marketing decisions, and are connected to certain elements of marketing mix. The respondents determined the level of agreeing with the statements given on a five-point Likert scale, whereby 1 indicated "I do not agree at all, the statement does not refer to our company.", whereas 5 indicated total agreement, that is the following attitude: "I completely agree, the statement refers completely to our company."

After pre-testing on a sample of 78 managers and postgraduate students with working experience two statements were excluded, so that the testing of the scale consisting of 14 statements on the sample of Croatian companies was done. The dimensionality of the scale were checked by exploratory factor analysis. A three component structure was gained which explained 66,32 % of the variance.

After the exploratory factor analysis, confirmative factor analysis was done as well, which represents a more rigorous test of the scale dimensionality. Taking the recommendation of Hair et al. (2006, p.786) into consideration according to which every construct should be represented with at least three indicators, and the fact that the reliability coefficient Cronbach alfa for the third component was only .694, it was decided that the third component represented by only two items was to be excluded, so that the measurement model which includes two components which explain 60,39% of variance was tested by the confirmative factor analysis. By this analysis the following indicators were gained: Goodness-of-fit Index (GFI) .932, Comparative Fit Index (CFI) .951, Normed Fit Index (NFI) .893 and Root Mean Square Error of Approximation (RMSEA) .082. The results gained are within the acceptability limits according to Byrne (2001), so it was concluded that the two-dimensional measurement scale constructed from eight manifest variables has satisfactory measurement characteristics. The results of the explorative factor analysis are represented in Table 1. The calculated coefficients can be considered as satisfactory according to the recommendation of Nunnally and Bernstein (1994, p. 265). The cumulative percentage of the explained variance is 60.39, which is on the lower limit of acceptability in social sciences according to recommendations given by Hair et al (2006, p. 120).

“The Perceived Role of Ethics and Social Responsibility” (PRESOR) scale by the author Singhapakdi A. et al (1996) which consists of 13 statements was implemented in order to explore the perception of the role of ethics and social responsibility in achieving business performance. The respondents on the nine-point Likert scale express their opinions on the importance of ethics and social responsibility in achieving the organizational effectiveness. A two-component structure, which is different from the original results, was gained by the component analysis. The results of the implemented analysis are represented in the paper Grbac and Lončarić (2009). A subscale named “Long-term gains” which consists of 6 statements referring to the perception of the importance of ethics and social responsibility for business performance in the long term (Table 1) was implemented for the needs of this research.

Orientation towards stakeholders was measured by the scale which consists of eight statements. The respondents marked on the five-level Likert scale their agreement with the statements which referred to fulfilling certain interests of the stakeholders. Two components were extracted by the explorative factor analysis and they explain the 53.84% of the variance. The results of the explorative factor analysis are represented in Table 1.

Table 1. The results of the explorative factor analysis and scales reliability analysis Source: research

Items	Factor loading	Cronbach alpha
SOCIALLY RESPONSIBLE MARKETING DECISIONS		
Satisfying consumers' needs		.787
<i>In developing a new product/service we start with the question how can the new product/service meet the needs of our consumers.</i>	.901	
<i>We introduce new products/services in order to meet the needs of consumers in a better way.</i>	.861	
<i>In planning marketing activities we take care of the quality of life in the society.</i>	.623	
<i>In developing a product/service we are trying to foresee and decrease possible negative effects upon the environment.</i>	.599	
Ethics in promotion and sales		.772
<i>Before placing the information about our products and services we always check the truthfulness of the statements given to the consumers.</i>	.886	
<i>Our consumers always have complete information about our products or services.</i>	.766	
<i>By promotional messages we are trying to encourage socially acceptable behaviour of our consumers.</i>	.689	
<i>In sales and distribution we choose those agents which give the best service to the final consumers.</i>	.656	
PRESOR - Long-term gains		.866
<i>The ethics and social responsibility of a firm are essential to its long term profitability.</i>	.909	
<i>The overall effectiveness of a business can be determined to a great extent by the degree to which it is ethical and socially responsible.</i>	.838	
<i>Business ethics and social responsibility are critical to the survival of a business enterprise.</i>	.805	
<i>Being ethical and socially responsible is the most important thing a firm can do.</i>	.766	
<i>Business has a social responsibility beyond making a profit.</i>	.698	
<i>Social responsibility and profitability can be compatible.</i>	.599	
STAKEHOLDER ORIENTATION		
Main stakeholders		.763
<i>We take care of the employees' interests when we make important business decisions.</i>	.775	
<i>We always satisfy the requirements of creditors completely.</i>	.759	
<i>We take care that our business does not have any harmful consequences for the local inhabitants.</i>	.741	
<i>In making business decisions we take the demands of our suppliers into consideration.</i>	.639	
<i>The interests of consumers (clients) are of top priority for us when we make business decisions.</i>	.592	
Other stakeholders		.560
<i>We try to satisfy the expectations of political parties and the government completely.</i>	.746	
<i>In decision-making we mostly take care of the owners' interests.</i>	.726	
<i>Competitors are our partners with whom we meet the needs of the target market.</i>	.691	

RESEARCH RESULTS

The research hypotheses assume the influence of different factors on the implementation of socially responsible marketing decisions. The mentioned hypotheses were tested by implementing different statistical methods.

In order to verify hypothesis H1 a correlation analysis among the variables "Long-term gains" which reflects the managers' perception of the importance of ethics and social responsibility for the success in the

long term and the variables "Satisfying consumers' needs" and "Ethics in promotion and sales". Taking the fact into consideration that the Kolmogorov-Smirnov test of the distribution normality was significant for the variables "Satisfying consumers' needs" ($z = 2.160, p = .000$) and "Ethics in promotion and sales" ($z = 1.739, p = .005$), the correlation coefficient Spearman's rho was implemented. A statistically significant correlation was determined between the variables "Long-term gains" and "Satisfying consumers' needs" ($r_s = 0,482, p < .001$), as well as between the variables "Long-term gains" and "Ethics in promotion and sales" ($r_s = 0,297, p = .002$), which confirms hypothesis H1. So, we can conclude that there is a connection between the perceived role of ethics and social responsibility in achieving organizational performance and socially responsible marketing decisions.

Hypothesis H2 states that there is a connection between the orientation towards stakeholders and socially responsible marketing decisions. By implementing correlation analysis it was established that there is a positive correlation between regarding the main stakeholders interests and satisfying consumers' needs ($r_s = .475, p < .001$) and ethics in promotion and sales ($r_s = .506, p < .001$). A statistically important connection of the orientation to the other stakeholders and ethics in promotion and sales ($r_s = .217, p = .030$) was also established, whereas the connection of the orientation to other stakeholders and satisfying consumers' needs was not established ($r_s = .064, p = .525$). These results confirm hypothesis H2, so we can conclude that those companies that take into consideration the interests of a larger number of stakeholders, such as consumers, suppliers, creditors, employees and local inhabitants also achieve a higher level on the scale of socially responsible marketing decisions.

In order to establish whether the existence of the code of ethics has any influence on decision making in marketing the Mann-Whitney U test was done. It was established that those companies which have a code of ethics achieve higher average values regarding the variables satisfying consumers' needs (MR = 56.05) and ethics in promotion and sales (MR = 56.21) compared to the companies that do not have the code of ethics (MR = 44.73 for satisfying consumers' needs and MR = 44.20 for ethics in promotion and sales). The difference between groups is statistically significant for the variable ethics in promotion and sales ($z = 2.025, p = .043$), whereas it is on the verge of statistical significance for the variable satisfying consumers' needs ($z = 1.925, p = .050$). The mentioned results show us that the hypothesis H3 can be confirmed, that the existence of the code of ethics in doing of business has an influence on the decision making in marketing.

Hypothesis H4 states that there is a difference in implementation of socially important marketing decisions taking the ownership structure into consideration. The hypothesis is checked by the Mann-Whitney U test for independent samples. A statistically significant difference has been established between the companies in domestic and foreign ownership regarding the ethics in promotion and sales ($z = 2.073, p = .038$). Managers employed in companies in foreign ownership achieve higher results on the scale (M = 43.20) than the managers employed in domestic companies (M = 32.91). The difference between companies regarding the variable satisfying consumers' needs was not established ($z = .392, p = .696$), so that the hypothesis H4 can be partially accepted.

Hypothesis H5 assumes that higher values on the scale of socially responsible marketing decisions are achieved by managers in large companies. Mann-Whitney U test for independent sample was done. The results for two groups of companies were compared. One group consisted of small and medium-sized companies, and the other consisted of large companies. A statistically significant difference between two groups of companies was not established by the test ($z = .345, p = .730$ for satisfying consumers' needs and $z = .709, p = .478$ for ethics in promotion and sales). The hypothesis H5 is therefore rejected and it is concluded that the size of the company does not have a more significant role in implementation of socially responsible marketing decisions.

CONCLUSIONS

Ethics and social responsibility in marketing can be manifested in avoiding morally questionable decisions by which the consumers are encouraged to behave unacceptably. In accordance with the Quality-of-life marketing philosophy the starting point in developing products and services is the need of the market which should be satisfied without negative effects upon the actors in the environment. It is also important to

encourage socially acceptable behaviour and declare truthful statements about products and services, as well as choose those distributors who offer the best possible service to the consumers.

In order to implement all the above mentioned, the presence of certain assumptions is needed. One of the conditions for ethical decision making in marketing is the perception of the importance of ethics and social responsibility in achieving business performance. As the research results showed, the managers who consider ethics to be important for the success of the company achieve higher values on the scale of socially responsible marketing decisions. Thereby is the attitude by Singhapakdi et al. (1996), that the perception of the importance of ethics in doing business is a precondition for moral conduct, confirmed.

Furthermore, it was established that one of the determinants of responsible decision making is the companies' orientation for satisfying the interests of a larger number of stakeholders. In those companies where they pay more attention to the interests of clients, creditors, suppliers, employees and inhabitants in the local community managers make decisions in accordance with the Quality-of-life marketing philosophy. The existence of the code of ethics contributes to this as well; the code shows that an understanding of the importance of ethics in doing business is present in the company, although the code itself does not necessarily prescribe the marketing managers' conduct regarding specific problems about which they have to decide. Foreign owners who entered the ownership structure during the process of privatization of Croatian companies also contributed to the implementation of ethical principles in communicating with the market, which is in accordance to the results by Bagić, Škrabalo and Narančić (2006) according to which the ownership structure has an influence on social responsibility. The reason for that is probably that privatized companies in mainly domestic ownership are still in the transition phase and in the process of adjusting to the rules of the game of the developed market economy and in creating organizational culture which stresses social responsibility as one of the crucial values of a company. The influence of the size of the company on social responsibility in marketing in Croatian companies was not established, probably because of the fact that there were mostly large companies in the sample.

On grounds of given results we can conclude that the determinants of socially responsible marketing decisions are both individual and organizational. The precondition for ethical decision making in marketing is the perception of the importance of ethics and social responsibility in doing business which is under the influence of different factors. Apart from the individual, the organizational factors that may be affected to a greater extent, are also important. In those companies which have clear rules of the game edited by the code of ethics and in which the organizational culture which takes the interests of a larger number of stakeholders into consideration prevails, marketing managers make decisions in accordance with the Quality-of-life marketing philosophy and thereby contribute more to the consumer well-being.

LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

It is also necessary to point out, because of the scientific truth, the limitations of the research done which had an impact on the research results. One of the limitations was a small sample in which those companies took part which gave the greatest contribution to added value. Further research should be done on a representative sample and, if possible, in different cultures, in both transition and developed market economies. Taking the fact of a small sample into consideration it was not possible to do an analysis of industries which should be done in future research.

The next limitation is the respondents' category. Managers from the field of marketing, independently of the fact in which department they are formally employed, answered the questions. One has to ask the question in which measure they were able to be objective or they fell into the trap of giving socially desirable answers. In future research a detailed analysis of a few companies could be done and their behaviour regarding social responsibility would be estimated by the stakeholders. In this case a further, more detailed analysis of different aspects of the implementation of ethics and social responsibility in marketing would be necessary.

The disadvantage of the research done is also the measurement scale by which the implementation of ethics and social responsibility in marketing should have been established. Many statements which belong to

the construct and should have been included were not included in the scale because of the possibility of the respondent's abstinence or avoiding to answer some questions, such as questions about non-ethical conduct in advertising or setting the prices. Therefore, the scale should be enlarged by generating new items and tested on a larger number of samples. It should also be differently formulated, so that it can be applied to the sample of consumers, business partners and other stakeholders.

The limitations mentioned lead us to the conclusion that the research results and conclusions drawn from them should not be taken for granted, but also represent a basis and challenge for further research.

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CONNECTING THE MEDITERRANEAN SYSTEM OF INNOVATION: A FUNCTIONAL PERSPECTIVE

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Purpose - This paper provides the first qualitative exploratory overview of the Mediterranean System of Innovation (MSI) and presents the results of an interactive work with 25 different innovation delegates from northern and southern Mediterranean countries. The study comes at the turning point where the Union for the Mediterranean is designing the innovation policies and debating the mechanisms to boost the central activities.

Design / Methodology / Approach - This research applies the literature of National Systems of Innovation, applying the functions perspective, to study the means Mediterranean countries use to advance its innovation capacity. In collaboration with IEMed, this research invited delegates from northern and southern Mediterranean countries, program directors and European Commission representatives to present the activities in their countries.

Findings- The data shed light on the most relevant enabling and blocking mechanisms for innovation as well as showed that R&D support is slightly changing to services and business models. Finally, it highlighted the relevance of having a defined innovation strategy necessary for increasing the existing capabilities.

Originality / value - The value of this research represents the use of the system of innovation functions perspective to explore the Mediterranean region. Further research could focus on exploring the differences between the northern and southern Mediterranean countries.

Keywords - Mediterranean System of Innovation, Innovation, Intermediaries

Paper type - Research paper

INTRODUCTION

The field of Systems of Innovation approach has existed for a little more than two decades, following the seminal work by Freeman (1987). Currently, it is used for the systemic study of the “elements and relationships which interact in the production, diffusion and use of new knowledge (Lundvall, 1992)”. This arrangements aim to increase market interactions, stimulating the generation and transfer of knowledge, skills and competences necessary for the formation of spillovers and economic growth. Research in systems of innovation has progressively expanded the focus of its study, traditionally at the national level (; Lundvall, 1992; Nelson, 1993), to explain innovation at the continental (Freeman, 2002), regional (Cooke, et al. 2004), sectoral (Malerba, 2004) and technological levels (Bergek et al. 2008). Further, it contributed to other theoretical fields such as innovation, and social networks (Dodgson 2008; Assimakopoulos 2007), knowledge and learning (Lorenz and Lundvall 2006) and innovation policy (OECD 2008).

Up to know empirical research has focused on specific industries or institutional factors avoiding a broader explanation of National System of Innovation (Tylecote 2007; Eickelpasch and Fritsch, 2005) or offered a broad perspective which does not explain how institutions shape organization’s innovative behavior (Mowery and Rosenberg 1993, Nelson 1993). The former approach has focused on sectors such as biotechnology and E-economy (OECD 1997; Dodgson, et al. 2008; Lester 2001). The latter approach includes broader longitudinal explanations of national systems (Freeman 2001; Nelson 1993) that covered a wide range of organizations, institutions in both developed countries (Arundel, *et al.*, 2007) and catching up ones (Hu and Mathews, 2005; Motohashi and Yun 2007).

Recently, efforts have been conducted to the study of Continental systems of innovation such as Europe (Arundel et al., 2007) or Scandinavia (Lundvall, 2008). A review of the literature on the Mediterranean System of Innovation (MSI)¹³³, however, revealed no single contribution has made the effort to comprehend the dynamics and components of it. Accordingly, the Mediterranean area should have an initial exploratory

¹³³ Our analysis is based on the Social Science Citation Index (SSCI) of Thomson-ISI available on the on-line database and consistent with the aim of our focus of study.

analysis of the organizations and institutions affecting its development. This analysis is relevant on the light of the ongoing turning point to consolidate the Union for the Mediterranean that will have major implications on the future innovation policies as well as on the de-pollution of the Mediterranean Sea, the establishment of maritime and land highways, civil protection initiatives to combat natural and man-made disasters, a Mediterranean solar energy plan, the inauguration of the Euro-Mediterranean University in Slovenia, and the Mediterranean Business Development Initiative focusing on micro, small and medium-sized enterprises.

Accordingly, this paper explores the functioning presenting some evidence on the functions of the Mediterranean System of Innovation (Edquist, 2006). The novelty of this contribution, apart of been the first one of its kind at the Mediterranean system level, it highlights the perceived relevance of intermediary organizations connecting organizations across regions.

Our discussion proceeds by analysing data provided by 25 selected innovation actors such as politicians, project managers and academics from various Mediterranean countries in collaboration with the Institut Europeu de la Mediterrània IEMed (European Institute of the Mediterranean). We study the MSO through the following research questions: a) how the Mediterranean System of Innovation (MSI) accomplishes the innovation system functions? Our results suggest the MSI has partially accomplished different innovation functions. However, the collected data revealed that the design of the system of innovation strategy and the role of intermediary organizations are two central activities for the development of the system.

The remainder of this paper is structured as follows. Section 2 describes the literature review on systems of innovation and each of the functions mentioned in the literature. The third section describes our research design. We continue in section 4 where we integrate our empirical data in the functions perspective of the systems of innovation. The final section summarizes the research and offers suggestions for further research.

LITERATURE REVIEW

The field of Systems of Innovation (SI) approach can be interpreted as institutional arrangements to provide connectivity among economic actors (Carlsson, 2007). These attempt to increase market interactions stimulating the generation and transfer of knowledge, skills and competences necessary for the formation of spillovers and economic growth. In this respect, the system of innovation framework is based on the following core aspects: first, it places innovation and learning process at the centre of the focus, second, it employs historical and evolutionary perspectives; thirdly, it emphasizes the idea of interdependency, and non-linearity and finally emphasizes the role of institutions for promoting innovation (Edquist, 2006). These aspects offer researchers with the sufficient perspective to explain the performance and transformation of systems at different levels of analysis.

Edquist (1997) suggest studies on systems of innovation include “all important economic, social, political, organizational, institutional, and other factors that influence the development, diffusion and use of innovations (Edquist 1997)”. Most of these studies emphasize the two-way relationship of mutual embeddedness between institutions and organizations that influences the performance and change of the system. Further, systems of innovation are conceptualized as the set of institutions and organizations along with the relationships among them. Institutions influence the interaction of public and private organizations. These are understood as sets of common habits, routines, established practices, rules or laws that regulate the relations and interactions between individuals and groups (Edquist and Johnson, 1997) and reduce the uncertainty by providing information and incentives. On the other hand, organizations represent the main vehicles for innovation in that they create, develop and diffuse groups of technologies. These include private as well as public organizations e.g. firms, universities, industry associations, scientific and professional societies, regulatory agencies, organizations for higher education and research technology, support entities and intermediaries.

Functions of Systems of Innovation

An established contribution to the study of systems of innovation represents the function approach (Chaminade and Edquist, 2005; Liu and White, 2001; Gali and Teubal, 1997) that is used to explain how an innovation system works in comparison to how it is composed or structured (Markard and Truffer, 2008). According to Jacobsson and Bergek (2004) and Hekkert et al. (2007), the fundamental reasons that justify the use of the functions approach are: 1) it allows researchers to conduct comparisons between innovation systems with different institutional set-ups; 2) it enables a more systematic method for mapping the determinants of innovation cycles and feedback loops and 3) it makes it possible to deliver a clear set of policy targets as well as methods to meet these targets.

Table 1 presents selected contributions to the functions perspective, the four groups of innovation activities to be considered by policy makers and the suggested indicators that describe the overall dynamics of innovation systems. Following, this paper briefly presents these four themes and sub-themes.

Provision of Knowledge inputs to the innovation process

This function, provision of R&D and competence building, emerged out of the perspective of interactive learning proposed by Lundvall (1992). It has evolved and focused on the how knowledge is created, transferred and exploited (David and Foray 1995; Johnson and Jacobsson 2003; Lam and Lundvall 2006) as well as the learning capability of individuals, organizations and regions related to human resource development and competence building (Lundvall et al., 2002).

<i>Grouping innovation activities and policy</i>	<i>Edquist (2006)</i>	<i>Bergek et al. (2008)</i>	<i>Gali and Teubal (1997)</i>	<i>Indicators for innovation systems</i>
<i>Provision of Knowledge inputs to the innovation process</i>	<i>Provision of R&D and competence building</i>	<i>Knowledge Development and Diffusion</i>	<i>R&D activities and supply of scientific and technical services to third parties</i>	<i>R&D projects, network size and intensity; size and orientation of R&D projects; learning curves; development of a new technology</i>
<i>Provision of markets-demand site factors</i>	<i>Articulation of quality requirements (demand side)</i>	<i>Influence on the direction of search</i>	<i>Policy making by governmental entities</i>	<i>Targets set by governments; no. press articles; incentives from taxes; regulatory pressure</i>
	<i>Formation of new product markets</i>	<i>Market formation</i>	<i>Diffusion of scientific culture through science centres</i>	<i>No. of niche markets; lead users; customer groups; actor strategies, market size; purchasing processes</i>
<i>Provision of constituencies to innovation system</i>	<i>Creating and changing organizations for the development of new fields of innovation</i>	<i>Entrepreneurial Experimentation</i>	-	<i>No. of new entrants and diversifying established firms; no. experiments; no. of diversifying activities of incumbents; breath of technologies used</i>
	<i>Networking through markets and other mechanisms</i>	<i>Development of positive external economies</i>	<i>Diffusion of information, knowledge and technology between suppliers and users</i>	<i>Specialized intermediaries, information flows, political power, pooled labour markets</i>
	<i>Changing institutions that provide incentives or obstacles to innovation</i>	<i>Legitimation</i>	<i>Professional coordination through academies, professional associations, etc.</i>	<i>Rise and Growth of interest groups and their lobby actions; visions and expectations; alignment with current legislation</i>
<i>Support services for innovation firms</i>	<i>1) Incubating activities; 2) Financing of innovation activities, 3) Provision of consultancy services of relevance for innovation processes</i>	<i>Resource mobilization</i>	<i>Implementation of institutions e.g. laws, . Functions usually performed by intermediary organizations</i>	<i>Volume capital and VC, volume and quality of human resources, complementary assets</i>

Table 1. Overview of the Functions of Innovation Systems

Traditionally, this activity has been carried out by public research centres and financed by public agencies. However, recent policy instruments promote a change towards more interactive involvement coming from private organizations towards either developing already basic research or co-investing in new lines research for producing basic research.

Provision of markets-demand site factors

These two functions involve the 1) articulation of quality requirements from the demand side and 2) the formation of new product markets. The former one refers to the activities of organizations, institutional mechanisms and demand side that can influence on the direction of search of new technologies, strategies, etc. This function involves an interactive match of, for example: visions, expectations and beliefs in growth potential, regulations and policy, articulation of demand from leading customers and crisis in current businesses. The second activity, formation of new product markets, studies the factors driving and hindering market formation such as the articulated demand, price/performance of new technologies, market demands and protected spaces for technologies. Finally, the result of this analysis should explain the mechanism and customer's preferences that facilitated the formation of new markets and technologies, revealing the (un) efficiency of different mechanisms.

Provision of constituencies to the innovation system

This function explores the three inputs to the innovation system: 1) creating and changing organizations for the development of new fields of innovation, 2) networking through markets and other mechanisms and 3) legitimacy. The function, creating and changing organizations for the development of new fields of innovation, supports the deployment of new technologies through the creation of new start-ups or new entrepreneurial activities in established firms. Entrepreneurial experimentation is measured using the number of new entrants, number of different types of applications and the breath of technologies used, as well as the character of technologies employed (Bergek et al., 2008). The second function, networking through markets and other mechanisms, explores the ongoing continuous interaction among firms, universities and users where networks or clusters of firms facilitate the exchange of information (Carlsson and Stankiewicz, 1991). Further, it analyzes the mechanisms that facilitate the formation of learning relations among a variety of actors in innovation processes as well as the emergence or entry of positive externalities i.e. new entrants, specialized intermediate goods and service providers.

Finally, legitimacy is a matter social acceptance and compliance with relevant institutions (Bergek et al., 2007). It is considered as a conscious process, through continuous actions between public and private organizations and individuals. The process of legitimation is aligned to the institutional alignment and enactment of new institutions i.e. incentives or obstacles to innovation.

Support services for innovation firms

Finally, the formation and development of systems of innovation depends on the support services provided by private and public organizations that include: 1) Incubating activities, 2) financing innovation processes and 3) provision of consultancy services (Edquist, 2006). The first one involves the provision of facilities and administrative support for innovation projects. The second involves the activities necessary for commercializing and facilitating the diffusion of R&D. Finally, the last activity involves the provision of consultancy advice for the commercialization and appropriation of technologies.

RESEARCH DESIGN

This research was carried in collaboration with the European Institute of the Mediterranean (IEMed) as part of the first study on innovation for the Union for the Mediterranean. This process initiated with a formal meeting in Barcelona on the 12th of February at the IEMed workshop “Innovation as a Motor of Development in the Euro-Mediterranean Region”. At the meeting, 25 selected innovation actors such as politicians, project managers and academics from various Mediterranean countries were invited to presented their national projects and provided comments in four different work-sessions: 1) Promotion of business innovation through the structuring of National Innovation Systems (NIS) and the creation of national agencies for the promotion of innovation, 2) funding mechanisms and promotion of innovation, 3) technology transfer and 4) promotion of innovation through international technology cooperation. Secondly, the major themes were identified by the researchers and commented with 5 representative attendees from Turkey, Egypt, and Spain and members from IEMed.

Finally, in this research we are aware of the differences between the northern and the southern Mediterranean countries. However, this paper attempts to be the first analysis on functions of the overall system rather than on its differences.

THE FUNCTIONS OF THE MEDITERRANEAN SYSTEM OF INNOVATION (MSI)

This part informs how the system of innovation functions is carried out on the MSI. This part follows the ten functions suggested by Edquist (2006) and complements the analysis with the indicators provided by Bergek et al. (2008), Hekkert et al. (2007), Chaminade and Edquist (2005), Carlsson et al. (2005), Liu and White (2000) and Gali and Teubal (1997).

Current situation in the MSI

This paper attempts to highlight the presented and discussed activities at the IEMed Workshop with 25 representatives from various Mediterranean countries. The structure of this point attempts to highlight arguments (table 2) to each innovation function as well as explain each one briefly.

Provision of R&D and Competence building

In the MSI the provision of R&D and competence building is supported as part of specific national programmes such as the “programme National de Recherche et d’Innovation (PNRI)” in Tunisia or the Industrial Innovation Programmes in Italy. Furthermore, at the IEMed workshop, representatives of Mediterranean countries expressed their overall agreement on recognizing not all types of innovation require research and not all research leads to innovation. Indeed, in the Mediterranean region a few numbers of innovations emerge out of basic scientific research and, in compare to European economies, are generally practiced as close as possible to markets. Nowadays, the increasing tendency is to support innovation on services and business model innovation. The Mediterranean reality reveals the provision of R&D and competence building, in the Mediterranean countries, is not limited to basic science but it also includes services and business model innovations.

Linking innovation activities and policy	Activities (Edquist, 2006)	Mediterranean System of innovation
Provision of Knowledge inputs	1) Provision of R&D and Competence Building	"Innovation is not research. Half of innovation is done without research. Mediterranean countries lack the capability to transform knowledge on business models for the service sector"
Provision of markets-demand site factors	1) Articulation of quality requirements (demand side)	"When I listened to the last presentation and went through different actions, I thought where is the strategy? And the strategy came last. I would have thought the strategy has to come first. This is something; we observe rather often that we are lost in details. I believe there are too many programmes in support of innovation, research, clusters. There are just too many and most the programmes have no impact"
	2) Formation of new product markets	"Nowadays, the only programmes addressing the lack of collaboration, between the Mediterranean region and the European region, are the Eureka and Medibtikar"
Provision of constituents inputs to the innovation process	1) Creating/changing organizations needed for the development of new fields	"In the Mediterranean region the only existing program of collaboration is Medibtikar that is designed to 1) increase the efficiency of incubators and technological parks across the region, 2) increase and enable technology transfer, 3) find early stage financing to increase innovation, 4) innovation management and 5) support for specific sectors"
	2) Networking through markets and other mechanisms	"Medibtikar facilitates the establishment of innovation networks through its five axes of operation (1) Services to incubators and technology parks, 2) development of technology transfer, 3) financing innovation, 4) innovation management and 5) sectoral support). Other local initiative is the one from ACCIÓ that has the initiative to create networks of innovation support to narrow interactions between universities and firms"
		"Enterprise networks represent coordinated actions between companies targeted at increasing their critical mass and at strengthening their presence on the market without necessarily having to merge"
	"In the Mediterranean region, Medibtikar, had the supporting role to set-up TTOs to facilitate the membership of Mediterranean countries to the Enterprise Europe Network (EEN). Up to now, five Mediterranean countries have already the partnership and other five are receiving help to write a proposal for acceptance"	
3) Changing institutions that provide incentives or obstacles	"A definitive and unique Mediterranean legal framework is apparently too complex and specialized that might encounter not only legal discrepancies but also cultural differences. Furthermore, it apparently represents a low priority for private companies collaborating with the research sector"	
Support services for innovation firms	1) Incubating activities	"Technology Transfer Offices (TTO) are relevant actors for the innovation process because these have the role to promote the generation, transfer or commercialization of the knowledge that may be applied to business activity" . "TTO are responsible to design, coordinate and manage a framework of technology transfer between university and companies"

	2) Financing of innovation activities	<p><i>"Most people qualify innovation support as a vitamin that helps to make the economy more robust, healthy. You could also qualify it as an aspirin if some people have some headache...The question is whether you can tackle the current economic and financial crisis with vitamin pills and aspirin. I doubt!"</i></p> <p><i>Three funding levels of innovation support: 1) Specific support for innovation initiatives (innovation vouchers) , 2) Specific innovation funds (Early stage funding through a business angel network), 3) General funds (Scientific and technological research investment, fund, competitive fund, Competitiveness and Development Fund and Enterprise Financing fund)</i></p>
	3) Provision of consultancy services of relevance for innovation processes	<p><i>"Two forms of consultancy facilitate the innovation process: 1) innovation agencies and 2) innovation intermediaries". 1) Innovation agencies financing innovation activities for the system of innovation and acting as facilitator of companies willing to unlock their potential to innovate and 2) Public-Private-Partnerships (PPP), private organizations, or programmes collaborating with the innovation process, from a non-technological perspective.</i></p>

Table 2. Current situation on Mediterranean System of Innovation

Articulation of quality requirements

In this part we use the indicator “targets set by governments and regulatory pressure” to study the articulation of quality requirements. Specifically, we observed the national innovation strategies of Mediterranean countries. Currently, in the Mediterranean countries, the issue of the innovation strategy is of high relevance because most innovation programmes do not have an impact on innovation and do not enforce the development of capabilities. Two comparing scenarios represent the Italian and Moroccan innovation tools. On the one hand, the former addresses 1) demands of an already specific type of companies (SMEs), 2) specific sectors and 3) innovative opportunities whereas the later provide opportunities to 1) a larger set of priority sectors, 2) emerging industrial sectors and 3) clusters and potential innovation initiatives. However, neither of these innovation strategies presents a clear strategy for enduring the development of capabilities and collaboration in the Mediterranean region. Finally, the last two major issues for the national innovation strategy include the designing and implementing an innovation strategy that embraces common goals that are perceived by everyone as long-term objectives as well as the diverse number of innovation actors who present their competences and needs.

Formation of new product markets

The formation of new product markets is in the Mediterranean area promoted by searching for new collaboration agreements between Mediterranean countries and national technology agencies in Europe. . However, a long lasting and formal collaboration has not been identified. Currently, the only programmes addressing the collaboration, between the Mediterranean region and the European region, are the Eureka and Medibtikar programmes.

Creating/changing organizations needed for the development of new fields

The system of innovation function “creation and change of organizations needed for the development of new fields” is measured by the number of diversifying activities of incumbents and the breath of technologies used in the Mediterranean region. Innovation activities are observed at the Mediterranean, national, cluster and sectoral level. At the Mediterranean level, the only existing program of collaboration is Medibtikar that is designed to 1) increase the efficiency of incubators and technological parks across the region, 2) increase and enable technology transfer, 3) find early stage financing to increase innovation, 4) innovation management and 5) support for specific sectors.

Collaboration at the regional and cluster level has been more predominant in the Mediterranean region. For example, the Barcelona city council has as objective to: 1) boost the role of Barcelona in terms of innovation, 2) link national and international innovation activities to the territory and 3) be recognized as an engine of innovation and research. A similar alternative represents the meta-districts in Italy that are scattered throughout the entire territory to benefit the sectoral synergies by 1) aggregating networks of SMEs; 2) supporting collaboration with the research system and 3) intensifying the exchange of know-how between companies.

At the sectoral level, collaboration is feasible by identifying companies' problems and future opportunities. A representative example is the ICT sector in Egypt that emerged out of a small group of private investors and policy makers, both having a common understanding of market needs and mutual interest. Following, once the system was on its emerging phase, it became institutionalized by governmental entities. The success factor in this case was the informality and collaboration among companies.

"Our experience with textiles is that it is much easier to do this in the private sector. Businessmen and women everywhere can change the way they do things very quickly if assured a financial return on their efforts"

Networking through markets and other mechanisms

In the Mediterranean region two forms of networks were ranked as highly relevant, for the development of the system of innovation, the first one is the innovation network and the second the enterprise network.

Innovation networks represent an initiative to improve the connection of universities, entrepreneurs, companies and technology parks engaged in the innovation process. Currently, Medibtikar facilitates the establishment of innovation networks through its five axes of operation (1) Services to incubators and technology parks, 2) development of technology transfer, 3) financing innovation, 4) innovation management and 5) sectoral support). Other local initiative is the one from ACCIÓ (the Catalan Innovation agency) that has the initiative to create networks of innovation support to narrow interactions between universities and firms.

An enterprise network has the principal function of supporting the connection of companies, particularly for SMEs, that require advice to establish new alliances, develop their business model and find the appropriate business partner.

"Enterprise networks represent coordinated actions between companies targeted at increasing their critical mass and at strengthening their presence on the market without necessarily having to merge"

In the Mediterranean region, Medibtikar, had the supporting role to set-up TTOs to facilitate the membership of Mediterranean countries to the Enterprise Europe Network (EEN). Up to now, five Mediterranean countries have already the partnership and other five are receiving help to write a proposal for acceptance. The EEN creates value for companies by providing the platform where SMEs are able to propose a technology offer and send it to a large network of firms in 60 countries. By the same token, they can write a technology request and express their specific need for a technology in a particular area.

Changing institutions that provide incentives or obstacles

Apparently, a common Mediterranean legal framework represents an enabler mechanism for collaboration among Mediterranean countries.

"Normally, there is a temptation to explore things that do not harm such as 1) metrics, statistics, mapping; 2) technology transfer. However, if you are on the high-tech industries the issues are different and include confidentiality and trust that require an innovation system in

place that allows real cooperation between clusters. Apparently, long-term cooperation demands a strong system of innovation but we are not usually allow to talk about it (issues affecting a system of innovation) because it demands to discuss about legal frameworks, civil rights, IPR, law enforcement and academic freedom, etc."

Apparently, the idea of a common Mediterranean legal framework is advantageous for the development of the MSI. However, up to now, mechanisms to successfully achieve it remain vague.

Incubating activities

Technology Transfer Offices (TTO) are relevant actors for the innovation process because these have the role to promote the generation, transfer or commercialization of knowledge to be applied for business activities. Furthermore, TTO are responsible to design, coordinate and manage a framework of technology transfer between university and companies.

Currently, three activities are conducted to improve the technology transfer process in the Mediterranean regions. The first initiative is the establishment of new enterprise partnerships that could occur through mergers and acquisitions with foreign companies. The second initiative is to increase the technology transfer initiatives on the Mediterranean service sector, along the product value chain. Finally, Mediterranean countries are searching for initiatives to establish new alliances between specialized southern Mediterranean agencies for innovation and European ones.

Financing of innovation activities

According to the attendees to the IEMed workshop, innovation funding has been broadly spread among different industries, sectors and technologies, without analyzing and measuring their impact. In the short-term, however, this form of distributing the scarce funding resources demands a necessary change in the funding model.

"Innovation support is been changed and if not, it will stop"

Currently, in the Mediterranean region the mechanisms for funding innovation include:

Firstly, the broadest level of funding is known as the general funding initiatives. In Italy this initiative are focused on fertilizing: 1) basic and industrial research, 2) competitive development and innovation and 3) the development of the Italian productive system. The second level is the Specific Innovation Funds for defined entrepreneurial or company activities. This initiative could be coordinated by public or private initiatives and usually the funding is lower and more targeted, in compare to the upper level. Thirdly, a specific support for innovation initiatives represents the innovation vouchers, adopted in the Netherlands, France and Finland. Innovation vouchers assist individual companies with their innovation ideas or activities. However, the use of them could vary on the amount and exigencies.

Provision of consultancy services of relevance for innovation processes

Innovation intermediaries, providing support and consultancy to, facilitate the development of the MSI by providing personalized support to organizations, entrepreneurs and scientists. In

the Mediterranean area two types of intermediaries were identified. On the one hand, innovation agencies represent public institutions providing support to: 1) finance innovation activities for the system of innovation, 2) act as facilitator of companies willing to unlock their potential to innovate and 3) provide coaching and information activities for companies. On the other hand, innovation intermediaries are public, Public-Private-Partnerships (PPP), private organizations, or programmes collaborating with the innovation process, from a non-technological perspective. The offered services include networking activities, provision of coaching and valorisation instruments.

“This not technology transfer, strictly speaking but the technology center is actually providing the type of support in different areas that enterprises really need to make a difference”

CONCLUSION

The contribution of this paper has both a theoretical and empirical relevance. On the one hand, it represents the first exploratory study of the Mediterranean System of Innovation and the validation of the functional systems perspective as well as the indicators. Our analysis suggests that the functional perspective is an appropriate instrument to conduct a systematic method for mapping the determinant of the MSI and to propose policy guidance. However, existing measures provide, partially, guidance to observe the activities conducted by organizations and effect of institutions. For example, Mediterranean countries conduct less R&D investments on new technologies but invest resources on services and new business models. On the other hand, the result of this research highlights some drawbacks on the MSI such as the innovation strategy and innovation networks. Furthermore, this research confirmed the relevance of intermediary organizations facilitating the formation and development of systems of innovation.

Based on this exploratory research, further research should attempt to: 1) explore each the northern and southern Mediterranean system innovation separately and 2) specifically explore the role of intermediaries linking the activities from different countries.

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CRISIS MANAGEMENT: ORGANIZATIONAL LUXURY OR NECESSITY FOR MEDITERRANEAN TOURIST BUSINESSES?

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Purpose. To support that crisis management is more necessary than ever as a business competency for organizations that are involved in the tourism sector. Tourism is a vital economic activity for the majority of the Mediterranean countries, and it is facing an increasing number of crises and disasters in the last years.

Design/methodology/approach. The paper provides a definition framework for crises and disasters, focusing in the tourism sector, through a brief literature review. Following, it uses some statistical evidence to support the important role of tourism for the Mediterranean economies, and then refers to some indicative cases of crises and disasters related with tourism in Mediterranean countries.

Findings. Since tourism is a very important economic activity for the Mediterranean countries, tourist businesses in these countries should enforce their crisis management competencies, and get better prepared against these phenomena.

Research limitations/implications. There is not quantitative evidence for the consequences of the crises and disasters cases used in this paper to the tourism industry.

Originality/value. The paper could be useful to practitioners that are involved in tourist businesses in Mediterranean countries, by stimulating their interest for crisis management.

Key words: tourism, crisis management

Paper type: General review

INTRODUCTION

The existing literature concerning tourism has noted an increasing number of disasters and crises, which affect the tourism industry, ranging from natural to human influenced incidents. In recent years the global tourism industry has experienced many crises and disasters including terrorist attacks, political instability, biosecurity threats, natural disasters etc. Many of the scholars that have studied this field (i.e Faulkner, 2001, Sausmarez, 2007) argue that there is a lack of research on crisis or disaster phenomena in the tourism industry, on the impacts of such events on both the industry and specific organisations, and the responses of the tourism industry to such incidents. More over, the existing literature focuses mainly in the management of crises after they have happened and the recovery process. Little job has been done concerning the pre crisis phase. This lack of interest and research is somewhat surprising considering that crisis management, disaster recovery and organisational continuity are important competencies for managers in both the public and private sector.

This paper aims to support the significance of crisis (and disaster) management and crisis preparation for organizations involved in the tourism industry. Especially in countries where tourism is an important contributor for their national economies, such as Mediterranean countries, these issues become more imperative.

Crises and disasters are defined in order to better understanding of these phenomena. The paper focuses further on the nature of crises and disasters for tourism industry. In order to enforce the necessity of organizational preparation in the tourism industry, the paper presents some brief statistical data, which are indicative of the importance of the tourism sector for most of the Mediterranean countries. Moreover, some indicative cases of crises and disasters in Mediterranean Area are presented in order to support that these situations are nowadays common phenomena, very next to us, and provide some evidence of these unpredictable situations that can harm tourist activity.

Finally the paper address some future research issues which could contribute to better understanding, planning and management of crises and disasters in an increasingly complex and disaster prone world always in relation with tourism industry.

DEFINING CRISES AND DISASTERS

The term "crisis" is widely used in several scientific contexts (i.e. medicine, psychology, economy, society etc). The use of the term, however, varies depending on the context in which it is being used and the researcher's discipline. In the organizational literature, crisis is defined as follows: *a low-probability, high-impact event that threatens the viability of the organization and is characterized by ambiguity of cause, effect, and means of resolution, as well as by a belief that decisions must be made swiftly* (Pearson and Clair, 1998). Pearson and Mitroff (1993) suggest that crises are events which pose threats to the viability of organisations. Seymour and Moore (2000) argue that crisis can threaten reputation, lives and the survival of an organisation. Faulkner (2001) argues that crises or disasters can be described as 'sudden challenges which might test the organisation's ability to cope'. All the existing definitions and approaches converge to that crises and disasters are unpleasant and difficult situations that have to be managed as effectively as possible. Contemporary crisis management approaches have supported that businesses and stakeholders involved in crisis situations should be benefited by the experience.

Crises are now occurring more frequently, possibly as a result of greater pressures on business and industry from global market demands, and they may have a much more severe impact. Elsubbaugh et al. (2004) suggest that crisis is an inevitable part of business today and cannot be separated from regular business activity. Understanding crises and disasters, their lifecycle and potential impacts and actions can help in the development of strategies by organisations to deal with such incidents, and stop or reduce the severity of their impacts on business and society, despite their complexity.

CRISES & DISASTERS IN THE TOURISM INDUSTRY

There are several approaches for the definition of the term crisis in the tourism industry. Laws and Prideaux (2005) argue that the term crisis in tourism industry usually refers to an event that leads to a shock resulting in the sudden emergence of an adverse situation. McKercher & Hui

(2004) point out that, crises are inevitable, 'episodic events that disrupt the tourism and hospitality industry on a regular basis' and Coles (2004) adds 'when not in crisis, destinations are in an extended programme of practically pre-event-limbo, almost waiting for the important trigger event to take place'. Parsons (1996) gave a very interesting view that can be used for the classification of tourism crises. He suggested three types of crises depending on their gestation period: a) Immediate crises, where little or no warning exists therefore organisations are unable to research the problem or prepare a plan before the crisis hits, b). emerging crises, these are slower in developing and maybe able to be stopped or limited by organisational action, and c) Sustained crises: that may last for weeks, months or even years. Similar to Parson's classification is the one of Seymour and Moore (2000), who have suggested that crises are of two types: the "cobra" type, which strikes suddenly and the "python" type which occurs gradually. Karagiannis et al. (2006) suggest an alternative aspect to classify the crises that affect tourism industry, using the factor of human involvement in the crises cases (direct, indirect, no human involvement). Similar is the classification of Sausmarez (2007), who argues that crises are traditionally classified as either *natural* (hurricanes and earthquakes) or *man-made* (industrial accidents, plane crashes and terrorist events).

But which types of crises and disasters are the most threatening for the tourism industry? Beirman (2003) focuses in five main reasons that result in a destination crisis: a) international war or conflict and prolonged manifestations of internal conflict, b) a specific act or acts of terrorism, especially those directed at or affecting tourists, c) a major criminal act or crime wave, especially when tourists are targeted, d) a natural disaster, such as an earthquake, storm or volcano, causing damage to urban areas or the natural environment and consequently impacting on the tourism infrastructure, and e) health concerns related to epidemics and diseases; these may be diseases which impact on humans directly or diseases affecting animals, which limit access to tourist attractions. Lepp and Gibson (2003) through their literature review pick out four major risk factors: terrorism, war and political instability, health concerns and crime. At the International Society of Hospitality Consultants (ISHC) Annual Conference held in San Diego, California, in 2006, ISHC Members participated in a series of roundtable discussions to identify the ISHC Top Ten Global Issues and Challenges in the Hospitality Industry for 2006. Among these ten issues were havoc from natural disasters and growing global uncertainty for security and safety. Maditinos & Vassiliadis (2008) proposed a cast of features for crises and disasters, which even if occur on local level and can be magnified in a considerable area, sometimes affecting the global tourism industry (Table 1). They consider that terrorism, natural disasters, political instability and war and epidemics are the four most serious kinds of crises for the tourism industry.

<i>Type of crisis</i>	<i>Gestation Period</i>	<i>Cobra-Python</i>	<i>Human Involvement</i>	<i>Man Made - Natural</i>
<i>Terrorism</i>	<i>Immediate</i>	<i>Cobra</i>	<i>Direct</i>	<i>Man made</i>
<i>Natural Disasters</i>	<i>Immediate</i>	<i>Cobra</i>	<i>Indirect & No Involvement</i>	<i>Man Made & Natural</i>
<i>Political instability and War</i>	<i>Sustained</i>	<i>Python</i>	<i>Direct</i>	<i>Man made</i>
<i>Epidemics - diseases</i>	<i>Emerging</i>	<i>Python</i>	<i>No Involvement</i>	<i>Natural</i>

Table 1 - Cast of features of "happen locally – affect globally" tourism crises. Source: Maditinos & Vassiliadis (2008)

WHY IS CRISIS & DISASTER MANAGEMENT IMPORTANT FOR TOURIST BUSINESSES?

There is a worldwide view, which has been formed during the last years that the current state of the world is directly responsible for an increase in disasters and crises. Our environment has become a more crowded world and as the population increases pressures such as urbanisation, the extension of human settlement, and the greater use and dependence on technology have perhaps led to an increase in disasters and crises (Richardson, 1994). The globalisation of the tourism industry has led to a rapid expansion of tourist businesses on an international scale in order to expand their market share and profitability (i.e. multinational hotel chains, rent-a-car companies etc). However, this process has also opened businesses up to a wider set of 'global risks' involved in running businesses at such a scale, as globalisation is often seen as complex and chaotic (Jessop, 1999). The world is also becoming more interdependent and connected so that small-scale crises and disasters may be "happened locally but they affect tourism globally" (Meditinos & Vassiliadis, 2008). Political instability or the outbreak of war in one part of the world can dramatically reduce tourist travel patterns to other parts of the world as experienced by the Gulf War of 1991 and the Iraq conflict in 2003. Tourism is therefore highly susceptible to external factors and pressures in the wider operating environment.

However, tourism is also an important economic sector for many countries and many destinations are dependent upon tourism for their growth and survival. Especially for most of the Mediterranean countries (as it will be presented below), tourism constitutes an economic sector with great contribution to their GNP, offering thousands of jobs and multiple positive consequences. This important role of tourism puts increasing pressure on managers and planners to consider the impact of crises and disasters on the industry and develop strategies to deal with the impacts to protect tourism business and society in general. Crisis and disaster management should be a core competency for tourism destination managers as well as business managers.

THE IMPORTANCE OF TOURISM SECTOR FOR MEDITERRANEAN COUNTRIES

Tourism is a major global economic sector and is increasingly making a contribution to national economies, particularly in developing countries, where it generates employment, stimulates regional development and is a means of attracting foreign exchange (Sausmarez, 2007). There has been spectacular growth in international tourism over the last 50 years, with

arrivals increasing at an average rate of 6.4% from 25.3 million in 1950 to an 763.2 million in 2004 (WTO, 2006).

International tourism came of age in coastal areas and islands of the Mediterranean in the decades after the late 1950s (Bramwel, 2003). First, came many of the coastal areas of Spain and Italy. In the late 1960s came Greece, Malta and Cyprus. All of these areas began attracting unprecedented numbers of tourist. From 1970s onwards, mass tourism also developed in North Africa's Mediterranean Countries such as Morocco and Tunisia. The Mediterranean has become a byword for summer mass tourism.

Mediterranean countries form some of the world's top tourist destinations (some of them are in the top of international ranking according to their tourism receipts, see Table 4), registering over 243 millions of international tourist arrivals in 2005 (Table 2) according to WTO (2006) and more than 150 billion euros receipts from tourism for the same period. In 2008 tourism in these countries accounted for about 2.6% of the GDP (Table 3).

Series	1990	1995	2000	2005	Average annual growth %	
					1990-2000	2000-2005
SPAIN	34,085	34,920	47,898	55,577	3.5	3.0
FRANCE	52,497	60,033	77,190	76,001	3.9	-0.3
ITALY	26,679	31,052	41,181	36,513	4.4	-2.4
MALTA	872	1,116	1,216	1,171	3.4	-0.8
CROATIA		1,485	5,831	8,467		7.7
ALBANIA	30	40	32	46	0.6	7.5
GREECE	8,873	10,130	13,096	14,276	4.0	1.7
TURKEY	4,799	7,083	9,586	20,273	7.2	16.2
CYPRUS	1,561	2,100	2,686	2,470	5.6	-1.7
SYRIAH	562	815	1,416	3,368	9.7	18.9
LEBANON		450	742	1,140		9.0
ISREAL	1,063	2,215	2,417	1,903	8.6	-4.7
EGYPT	2,411	2,871	5,116	8,244	7.8	10.0
TUNIS	3,204	4,120	5058	6,378	4.7	4.7
ALGERIA	1,137	520	866	1,443	-2.7	10.8
MOROCCO	4,024	2,602	4,278	5,843	0.6	6.4
TOTAL	141,797	161,552	218,609	243,113	5.4	2.2

Table 2 - International Tourist Arrivals by Country of Destination (1,000). Source: WTO (2006)

No one can dispute the variety that the Mediterranean offers. From traditional sun and sand destinations (like Spain, Greece, Turkey and Tunisia) to those with a high cultural or heritage-based component (in particular France, Greece and Italy), the Mediterranean's coastal areas are mainly visited for holiday and leisure purposes, although other incentives are gradually gaining ground, as is also occurring at a world level, such as travel for health purposes or professional and business reasons. (Manera & Taberner, 2005).

Series	1990	1995	2000	2005	Average Annual Growth %	
					1990-2000	2000-2005
SPAIN	14,515	19,306	32,446	38,495	12.4	1.9
FRANCE	15,850	21,091	33,301	33,981	11.0	0.2
ITALY	12,924	21,965	29,767	28,453	13.0	-0.4
MALTA	389	505	660	623	7.0	-0.6
CROATIA		1,031	3,012	5,999		9.9
ALBANIA	3	50	421	692	1,393.3	6.4
GREECE	2,032	3,161	9,981	11,037	39.1	1.1
TURKEY	2,533	3,790	8,268	14,590	22.6	7.6
CYPRUS	988	1,375	2,102	1,872	11.3	-1.1
SYRIAH	251	962	1,171	1,712	36.7	4.6
LEBANON	NA	NA	NA	NA	NA	NA
ISREAL	1,097	2,288	4,426	2,293	30.3	-4.8
EGYPT	864	2,052	4,704	5,506	44.4	1.7
TUNIS	744	1,170	1,822	1,658	14.5	-0.9
ALGERIA	82	25	104		2.7	-10.0
MOROCCO	989	991	2,208	3,711	12.3	6.8
TOTAL	53,261	79,762	134,393	150,622	15.2	1.2

Table 3 - International Tourist Receipts by Country of Destination (million €). Source: WTO (2006)

Country	Tourism Receipts (a)	National GDP (b)	(a)/(b) %	International Ranking
SPAIN	56,020.7	1,601,501.8	3.5%	2
FRANCE	50,405.5	2,849,687.4	1.8%	3
ITALY	42,104.4	2,299,882.5	1.8%	4
TURKEY	18,793.6	731,268.6	2.6%	9
GREECE	15,660.9	359,034.7	4.4%	12
EGYPT	11,600.0	162,908.1	7.1%	18
CROATIA	9,023.3	69,332.4	13.0%	26
MOROCCO	7,663.3	86,393.7	8.9%	31
ISREAL	3,638.3	201,293.5	1.8%	50
TOTAL	214,910.0	8,361,302.7	2.6%	

Table 4 - Tourism receipts as percentage of national GDP (2008) and International Ranking of the Mediterranean Countries according to their Tourism Receipts (amounts in million\$). Source: Euromonitor Global Market Information Database (2009a and 2009b)

What is very interesting about tourism in Mediterranean Countries, is that they have to operate simultaneously both like partners and competitors as well. This means that when bad things happen to one country (i.e. political instability, epidemics) the neighbour countries are very possible to be affected directly or indirectly. From this point of view Mediterranean

countries should co-operate in relation to some important issues, which affect the tourism activity in a major scale than a single country itself (i.e. political instability, epidemics etc).

But the neighbour countries are also competitors between each others. For example, Greece has not suffered any serious terrorism attack over the last couple of decades and thus is considered to be a safe destination. Moreover, the technological know-how acquired to support the organisation of the 2004 Olympic Games in Athens has enhanced the image of Greece with respect to safety. As a result, security is one of the competitive advantages of Greece compared to other Mediterranean countries, such as Turkey and certain North African destinations. Indeed, over the last couple of years, Greece has gained from terrorism incidents in Turkey (2003 and 2008 Istanbul bombings) and Egypt (2005 Sharm el-Sheikh bombings), something which led to extremely high occupancy in most Greek summer destinations (Euromonitor Global Market Information Database, 2009b).

CRISES AND DISASTERS CASES IN MEDITERRANEAN COUNTRIES

Following, there is a very brief presentation of some crises and disasters cases related with Mediterranean tourist destinations. The selection of these cases is random and has been done in order to support that crises and disasters incidents, though usually unpredictable, are frequent and happen next to us. One limitation that has to be noted here is the absence of quantitative data concerning the consequences of these crises cases in terms of revenues and losses for the tourism industry. But undoubtedly, they had multiple negative consequences for tourism activities in the areas where these incidents took place.

Political instability in Mediterranean Middle East

The tense situation in the Middle East has affected Middle East countries, especially the Mediterranean ones, politically, economically and with regard to travel and tourism, and has led to the portrayal of these countries as a dangerous place, thus deterring tourists to some extent. In addition, in July and August 2006, the war between Israel and Lebanon hampered travel and tourism in the area (Euromonitor Global Market Information Database, 2009b). Although the war took place in northern Israel, travel and tourism especially throughout Israel was negatively affected. Furthermore, the high level of security governing everyday life while being a necessary factor in bringing back a sense of safety is also often characterised by rigid and exhausting regulations in almost all public locations. Although Israelis are accustomed to this, it is not always easy for incoming tourists to live under such conditions.

The outlook of travel and tourism in the area is expected to be affected mostly by regional political stability and security issues, as these factors have a critical effect on factors such as growth of the economy and growth in disposable income. These factors also affect international public opinion and national morale and they impact travel and tourism (Euromonitor Global Market Information Database, 2009b).

Terrorist Attacks in several Mediterranean Places

Several terrorist attacks happened during the recent year in several Mediterranean places. Some of them were extremely severe and caused serious damages with many victims (injured

and dead people). These terrorist acts harmed also the image of the places where happened, in terms of safety and security. Although there is no quantitative evidence of this damage, it is logical that these acts affect tourist patterns either in a short or in a long term. Such cases were the following:

- **Egypt.** The 2005 Sharm el-Sheikh attacks were a series of terror attacks on July 23, 2005, perpetrated by a Wahhabi organization, targeting the Egyptian resort city of Sharm el-Sheikh, located on the southern tip of the Sinai Peninsula. Eighty-eight people were killed, the majority of them Egyptians, and over 200 were wounded by the blasts, making the attack the deadliest terrorist action in the country's history. The bombings coincided with Egypt's Revolution Day, which commemorates Nasser's 1952 overthrow of King Farouk. They were intended to hurt one of Egypt's most important vacation spots, a tourism capital that had billions of dollars invested in it, and achieved that goal as it was registered that many tourists vacated and there were numerous cancellations. Historically, foreign tourists have been a common target of attacks dating back to the early 1990s. Militants have typically been motivated by a combination of Islamic fundamentalism and opposition to the Mubarak government, and attacking foreigners including non-Muslims while hurting Egypt's tourist trade was seen as serving both goals. The most bloody attack prior to the Sharm el-Sheikh bombings was the November 1997 Luxor massacre, in which 58 foreign tourists and four Egyptians died. In October 2004, a series of bomb attacks killed 34 people in Taba, also on the Sinai Peninsula. In April 2005 Cairo was hit by two days of terrorist violence, in which three foreign tourists were killed. (Wikipedia, 2009a).
- **Morocco.** Morocco experienced a serious terrorist attack in 2003, with Casablanca bombings, on May 16, 2003. The attacks were the deadliest terrorist attacks in the country's history. Forty five people died and more that 100 were injured. The attacks occurred four days after the Riyadh compound bombings that targeted Western compounds in Riyadh, Saudi Arabia, killing 26 people. World leaders condemned the attacks, coming on the heels of the Riyadh compound bombings. In response to that attack and the Casablanca attacks, the U.S. Department of Homeland Security raised the terror threat level to Orange (Wikipedia, 2009b). These attacks made serious harm to country's profile as a safe tourist destination. However, the security approach and the measures that were adopted, restored the country's tourist profile (Euromonitor Global Market Information Database , 2009b).
- **Spain.** The 11 March 2004 Madrid train bombings (also known as 3/11 and in Spanish as 11-M) consisted of a series of coordinated bombings against the Cercanías (commuter train) system of Madrid, Spain on the morning of 11 March 2004 (three days before Spain's general elections), killing 191 people and wounding 1,800. In France, the Vigipirate plan was upgraded to orange level and in Italy, the Government declared a state of high alert. Although Madrid's security and safety image was seriously harmed, tourism in the Spanish capital, recovered within months of the attack. The quick response of the Spanish security forces in detaining the main suspects within a week (who were finally convicted in October 2007) helped to recover confidence in Spain as a safe destination for tourists from overseas (Wikipedia, 2009c).

Disastrous fires in Greece

In the summer of 2007, Greece was severely hit by forest fires. Three consecutive waves of heavy fires raged all across the country from late June to early September. The most severe incident was the catastrophic fires in Peloponnesus. From 24 to 28 August 2007, a series of fires took place in Peloponnesus, leading to the greatest forest fire disaster of the contemporary Greek State history. Even the ancient Olympia site, which is in Peloponnesus, was threatened by the blazes. Ancient Olympia, which hosted the Olympics for centuries from 776 BC, holds an Olympic flame ceremony every two years and is among the most popular tourist sites in the country. The site and its museum were saved but all the forest area around it burned down (Bassi and Kettunen, 2008).

Peloponnesus mega fires have gone on record as the most catastrophic in the country's history and the most catastrophic of the last decades in Europe (WWF Hellas, 2007). They destroyed not only forests and agricultural lands, but also entire villages, infrastructure and they left 67 people dead. Hundreds of houses were burned and thousands of people fled the fires, seeking temporary refuge in schools, hotels and regional health centers (Triandafyllou, 2007). The rapidly advancing fires caught many people unaware. These fire events have been cited in the press as the fourth worst disaster due to forest fires worldwide since 1871 and by far the deadliest for humans in recent years (Bassi and Kettunen, 2008).

Among other severe consequences (environmental, social etc), the fires also resulted in **economic damage**. The Greek government declared a state of emergency and allocated about €300 million for emergency relief. However, the final cost of the fires is difficult to be estimated. Tourism and agriculture were hard-hit and the regeneration of forests will take many years. An independent estimate by the international assessment firm Standard & Poors evaluates the damage in the range of €3 to 5 billion, corresponding to 1.4% to 2.4% of the country's GDP (Bassi and Kettunen, 2008).

Swine Influenza: a world pandemic

International tourism demand has deteriorated further due to the impact of the global economic recession. International tourist arrivals declined at a rate of 8% between January and February 2009, leaving the overall volume at the same level as recorded in 2007. At the same time, influenza A (H1N1) is starting to affect the sector. Its impact is being closely monitored by the Madrid-based United Nations World Tourism Organization (UNWTO) in collaboration with the Geneva-based World Health Organization (WHO). (Strohman, 2009).

Adding to the consumer and business uncertainty and the loss of confidence, the Influenza A (H1N1) pandemic has created an increasing degree of confusion around the issue of whether it is safe to travel. UNWTO has been very active in pressing for a clear WHO position and is working closely with the International Civil Aviation Organization (ICAO) to ensure a balanced decision making process.

Within the United Nations system, UNWTO has a direct line to express the interests of tourism and travel. At this stage, the extent of the spread, sustainability and the complete health implications of the virus remain uncertain. Given the increased public awareness, engagement and the resulting elevated concern, calls for the urgent need for response must be viewed in

context – awareness is key, not abrupt and uninformed reactions. So far, Northern, Southern and Mediterranean Europe, North-East Asia, South Asia and the Middle East are amongst the most affected sub-regions (Strohman, 2009).

THE NEED FOR CRISIS PREPAREDNESS IN TOURIST BUSINESS

Crises and disasters have become a new reality for tourism industry. Factors that affect this new reality are the fact that the world is also becoming more interdependent and connected. However, the negative consequences of these incidents can be moderated if the stakeholders involved in tourism industry get prepared for confronting such incidents. But, as Prideaux et al. (2003) note, crisis preparation is not yet an integral component of tourism business practice, and many tourism executives seem reluctant to anticipate the need. So, the need for crisis preparedness is obvious. Koor – Misra (1995) defines crisis preparation as an ongoing process of developing organizational capabilities to prevent, contain and recover from crises, and to learn from experience. Furthermore, Siomkos and Maditinos (2001) support that crisis preparation is very important for organizations involved in high risk business activities like airlines, coastal shipping etc. Pearson (2002) identifies the obvious: there is no way to ensure that an organization will escape crises. The only way for an organization to minimize crisis damage is either to avert crisis if possible or to manage it effectively. This can be achieved by being as best prepared as possible. Crisis preparation should be of high concern for every business involved in tourism industry.

CONCLUSIONS

Tourism is the single largest non-government economic sector in the world and the most important economic activity for several local economies worldwide. It is also a fragile industry in that demand for travel is highly susceptible to numerous disasters and crises. The globalisation of the tourism industry and the fact that the world is also becoming more interdependent and connected, have led to a new reality for tourism industry. Crises that occur in one single place of the world can affect the tourism around the broader area or worldwide. Understanding crises and disasters, their lifecycle and potential impacts and actions can help in the development of strategies by organisations to deal with such incidents.

By understanding these phenomena more effective strategies can be developed to stop or reduce the severity of their impacts on business and society, despite their complexity. Strategies to deal with these different crisis situations will vary depending on time pressure, the extent of control and the magnitude of these incidents. Of course, crises and disasters impacts do not last forever. Usually, tourism activity returns back to normal life after a recovery period.

Mediterranean area constitutes one of the most favour tourist destinations worldwide. Tourism industry is making an important contribution to Mediterranean national economies, particularly in developing countries, where it generates employment, stimulates regional development and is a means of attracting foreign exchange. Crises and disasters, such as political instability, terrorist attacks, natural disasters, and epidemics incidents, though unpredictable are a common phenomenon in Mediterranean countries and affect the tourism industry directly or indirectly in several ways. This means that managers of the organizations

involved in tourist business should adopt crisis management as a part of their organizational routine.

Future research should be focused on several issues that have to be further examined and analyzed in order to improve understanding crises' aspects. These issues include:

- An analytical quantitative approach of the impacts that these kinds of crises have for the Mediterranean tourism industry expressed in terms of tourism revenues.
- The duration of the recovery period examining and analyzing quantitative data of typical cases of crises, like the ones presented above.
- The way in which the tourism aspects of these adverse events of crises are managed either effectively or not.
- Thoughts and beliefs of managers of tourist businesses and organizations involved in tourism industry about crises that happen locally and affect globally.

What comes as a final conclusion of this paper, is that all the stakeholders involved in the tourism sector in Mediterranean countries (i.e. businesses, local authorities, professional associations, governments etc) have to realise this: as tourism is a basic economic activity for them, any crisis or disaster may disrupt their business continuity and cause serious damages to their operations. So, preparation for crises and disasters and the development of crisis management techniques and strategies could contribute to avert such unpleasant situations or to minimise their negative effects if they finally do happen. Thus, crisis management is not a luxury but a contemporary necessity for Mediterranean tourism industry.

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CORPORATE SOCIAL RESPONSIBILITY: EVIDENCE FROM THE ATHENS STOCK EXCHANGE

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Corporate social responsibility(CSR) is considered in a research context based on dichotomous analytical techniques such as discriminant analysis and logit specifications.Using these techniques it is shown if CSR can be forecasted,which are the discriminating variables between companies that have CSR and those that do not have CSR and which statistical technique fits better to the data drawn from these two groups of companies as far as the companies listed in the Athens Stock Exchange is concerned.Results indicate that very few variables play a role in the discrimination between the two groups of companies while size does not play a role almost at all.

INTRODUCTION

Corporate social responsibility(CSR) has been considered a modern way of doing business.It has a long experience in the USA and is a recent phenomenon in Greece as far as the companies is concerned.On the other hand,Greece has a long tradition as regards to donations by individuals:since ancient Greece individuals donated funds to the State or to erect public buildings.In the international arena CSR means actions like making extensive charitable contributions,promoting community development plans,maintaining plants in economically depressed locations, establishing environmental protection procedures,etc.As Tsaklanganos has put it,other areas of social responsibility are i)small and minority-owned firms that can be developed with the help of big business through monetary assistance,managerial training and technical guidance,ii)educational functions in the community beyond the plant by providing financial support to schools for equipment,libraries and construction,donating supplies or manpower,allowing the use of their office facilities in the night for college and community educational programs and,iii)renewal of cities by building or renovating middle-and-low cost housing,helping improve transportation facilities and upgrading other municipal services.CSR is seen as a key driver for engaging the wider community as an important stakeholder in business activity.

According to the Awareness and Social Behavior Index(ASBI) as developed by the MEDA Communication SA in Greece the 39.5% of a sample knows about the existence of companies that have CSR.Eight out of ten employees in the private and public sector agree that CSR is very important to social life.The 6.5 out of 10 employees report that they do not know if the business enterprise in which they work has CSR.Finally,34.5% of the citizens report that companies use CSR to improve their image.

The institution of CSR has been established in the framework of corporate governance for Greek companies listed in the Athens Stock Exchange.The rate of companies that have CSR is 8.6%(24 companies over 279 companies that report financial statements in the Internet) and

8.39% for the final sample used in this study(23 over 274 companies).For the first time a company has been awarded a prize for CSR.This is Bank of Piraeus which has been awarded a prize by the Greek Chamber of Industry and Commerce.

Because the phenomenon is very recent in Greece,we first examine the characteristics of companies that have CSR and those that do not have CSR.Dichotomous analytical techniques have been employed in order to discriminate the two groups of companies.This paper purports to compare empirical findings drawn from the application of two dichotomous statistical techniques through an assessment of the analytical quality of ratio analysis using data drawn from the Athens Stock Exchange.

The rest of the paper is organized as follows.Next section II reviews the literature.Section III contains the research design.Section IV reports empirical findings.Section VI concludes with a summary and suggestions for further future research.

REVIEW OF THE LITERATURE

CSR even if it is an old business discipline it has very infantly been studied.Research studies are very scarce.CSR has its origins on community issues.Dr Demming as far back as 1946,had argued that “statistical quality techniques ought not to be limited to economic applications”.He argued on the significance from social contributions that would emerge,through the application of quality tools and techniques.Demming’s views were further stressed by Juran(1994) who has often argued quality Institutions to expand their mandate by placing more emphasis on rendering service to society.

Although social issues have been debated for centuries,only recently they have joined the mainstream management literature as a legitimate area for inquiry.Levy(1999) expresses the opinion that corporate philanthropy and social initiatives are the heart and soul of business.He stresses the fact that “social endeavors must be consistent with business objectives for earning profit(heart) and must express the values of serving society(soul)”.

CSR in social welfare has shown that certain firms have responded to these concerns by devoting more resources to CSR.It has been considered an active source of competitive advantage.According to Lin et al.(2009) CSR can be a proactive business strategy and an effective marketing tool to create and sustain a competitive advantage.However,in some companies management has resisted,arguing that additional CSR investment is inconsistent with efforts to maximize profits.This disagreement has prompted researchers to examine the relationship between CSR and financial performance in an effort to assess the validity of these concerns.

The management literature has acknowledged social responsibility as an important corporate duty(Tsaklanganos,1974;1976;Quinn et al.,1987; McGuire et al.,1988).As Carrington(1970) has formulated it,a healthy business system can not exist in a sick society.Tsaklanganos(1976) has argued that business must also participate in solving the problems of the community and the society at large.According to Arlow et al.(1982), Ullmann (1985),Mc Guire et al.(1988) CSR is very significant in corporate decision making and the relationship between a firm’s social policies or actions and its financial performance is an important topic.

In the literature the main body of research has been focused on the relationship between firm's social responsibility and their financial performance. There are three standpoints. The first is that firms face a trade-off between social responsibility and financial performance. These proponents propose that firms incur costs from socially responsible actions that put them at an economic disadvantage compared to other less responsible firms (Aupperle et al., 1985; Ullmann, 1985; Vance, 1975). A second standpoint is that the explicit costs of corporate social responsibility are minimal and that firms may actually benefit from social responsible actions in terms of employee morale and productivity (Moskowitz, 1972; Parke et al., 1975). Finally, the third standpoint refers to the fact that the costs for socially responsible actions are significant but are offset by a reduction in other costs. According to stakeholder theory (Cornell et al., 1987) apart from stockholders and bondholders those with less explicit claims should be satisfied. Alexander et al. (1978) and Bowman et al. (1975) have asserted that stakeholders may see CSR as indicating management skill. An increase in perceived social responsibility may improve the image of the firm's management and permit it to exchange costly explicit claims for less costly implicit charges. If a firm does not act in a socially responsible manner, parties of implicit contracts concerning the social responsibility of the firm may attempt to transform the implicit agreements that will finally be more costly to it. Firms with an image of high CSR may find that they have more low-cost implicit claims than other firms and thus have higher financial performance (Cornell et al., 1987).

Research into the relationship between corporate social responsibility and financial performance has been developed on the basis of some theoretical arguments. Those who have asserted that there is a negative relation between social responsibility and financial performance argue that high responsibility results in additional costs that put a firm at an economic disadvantage compared to other less socially responsible firms (Bragdon et al., 1985; Vance, 1985). Those who argue for a positive association cite improved employee and customer goodwill as an important outcome of social responsibility (Davis, 1975). Socially responsible activities may also improve a firm's standing with such important constituencies as bankers, suppliers, creditors, investors, and government officials who may bring economic benefits (Moussavi et al., 1986). According to Spicer (1978), bankers and other institutional investors have reported social considerations to be a factor in their investment decisions. Thus far, high CSR may improve a firm's access to sources of capital.

Apart from the relationship between CSR and measures of financial performance, an argument for a relationship between social responsibility and such measures of financial risk as variance in earnings and in stock returns is also made (Spicer, 1978; Ullmann, 1985). Low levels of social responsibility may increase a firm's financial risk. Investors may consider less socially responsible firms to be riskier investments because they see management skills at the firm as low (Alexander et al., 1978; Spicer, 1978). In contrast, a high degree of CSR may permit a firm to have relatively low financial risk as the result of more stable relations with the government and the financial community. Besides, it is asserted that in case of high social responsibility firms may also have a low percentage of total debt to total assets that helps them to continue to satisfy implicit claims.

CSR may also be linked to past firm performance. Financial performance may influence a firm's evolving social policy and actions (Ullman, 1985). If CSR is viewed as a significant

cost, firms with relatively high past financial performance may be more willing to absorb these costs in the future (Park et al., 1975; Ullmann, 1985). In contrast, less profitable firms may be less willing to undertake socially responsible actions.

Previous empirical research on the relationships between CSR and measures of firm performance has yielded mixed results. Moskowitz (1972) reported higher than average stock returns for highly ranked firms in terms of his evaluation of their level of social responsibility. Vance (1975) found a subset of the firms rated by Moskowitz had lower stock-market performance than a comparison sample of firms listed in the NYSE Composite Index, Dow Jones Industrials, and S & P Industrials. In other studies (Alexander et al., 1978) where an attempt is made to adjust stock-return performance measures for risk the relationship between social responsibility and market performance is very low.

Bragdon et al. (1972), Bowman et al. (1975), and Park et al. (1975) have reported a positive association between CSR and accounting-based measures of performance. Cochran et al. (1984) found a positive correlation between social responsibility and accounting performance after controlling for the age of assets. In contrast, Aupperle et al. (1985) found no significant relationships between social responsibility and a firm's return on assets (ROA) adjusted by its ranking in the Value Line Safety Index. Sturdivant et al. (1977) by categorizing firms as best, honorably mentioned, and worst in terms of social responsibility found that firms with an honorable mention had higher accounting-based performance than the other firms. McGuire et al. (1988) found that firms low in social responsibility also experience lower return on assets (ROA) and stock-market returns than do firms high in social responsibility. Their most interesting result is that prior performance is generally a better predictor of CSR than subsequent performance. Lin et al. (2009) by examining 1000 Taiwanese cases in which firms include their R & D expenditures as one of their business strategies for sustainable development, they identify their charitable expenditures as contribution to CSR. Based on theoretical assertions and empirical evidence, they identified a positive relationship between CSR and financial performance. They found that while CSR does not have much positive impact on short-term financial performance, it does offer a remarkable long-term fiscal advantage.

THE RESEARCH DESIGN

Research Method

The research question which is set first leads to the suitable research method that will be employed in this study. Could companies that have CSR be discriminated from companies that do not have CSR, how correctly they can be classified and whether prediction can be appropriately used in decision making. A suitable research method is to compare companies that have CSR with a control group of companies that do not have CSR. Discriminant analysis and logit specification are the most suitable statistical techniques that have been successfully tested in many fields in order to discriminate between groups of companies. Depending on the nature of the data of the two groups of companies alternative methods such as discriminant analysis and logit specifications are tested in the purpose of the appropriate selection with no ignorance of theoretical dogmas and proliferations. Theoretically, it has been argued that if the explanatory variables are normally distributed, then one should use discriminant analysis. However, if the

explanatory variables are not normally distributed, then discriminant analysis gives inconsistent estimates, and one is better off using logit analysis (Maddala, 1991). Logistic regression is considered preferable not only because of theoretical reasons but due to the particularities of the sample selection. Theoretically, logistic regression is usually preferable to discriminant analysis when one wants to see the contribution of each variable to differentiating between groups. It is also effective even when the main objective is classification.

Discriminant analysis is a statistical technique used for predicting group membership on the basis of the values on a set of predictors' variables. It operates with the conditional distribution of x (explanatory variables) given y (dependent variable). The model has the following general form:

$$Y_i = 1 \text{ if } P(Y_i = 0/X_i^*)L_{01} < P(Y_i = 1/X_i^*)L_{01}$$

$$Y_i = 0 \text{ otherwise}$$

where

$P(Y_i = 1/X_i^*)$ as a posterior probability of $Y_i = 1$.

A logit model specifies the conditional distribution of y given x . It assumes that $g(x) = \text{logit}\{\Pi(x)\}$ is the linear function of covariates (x) of the i^{th} subject with the logit as the dependent variable. Specifically, $g(x) = a + bx$ with

$$\Pi(x) = \frac{e^{a+bx}}{1 + e^{a+bx}}$$

where $\Pi(x)$ denotes the conditional probability that Y occurs, conditional that it did not occur. In other words, $\Pi(x) = P(Y=1/Y=0)$ with Y denoting the outcome variable.

Variables Selection

The variables used are represented by the financial ratios selected in this study. They have been selected in order to have a full picture of the profile of the company and have been employed in other studies (Maggina, 2008). The list of financial ratios used has as follows:

<i>Financial Ratios</i>	<i>Abbreviation</i>
<i>Net Income:Total Assets(return on assets)</i>	<i>NITA</i>
<i>Cash:Current Liabilities(liquidity ratio)</i>	<i>CASCL</i>
<i>Cash:Total Assets(liquidity ratio)</i>	<i>CASTA</i>
<i>Quick Assets:Total Assets(quick ratio)</i>	<i>QATA</i>
<i>Current Assets:Sales(return on current assets)</i>	<i>CASA</i>
<i>Net Worth:Total Debt(equity to debt ratio)</i>	<i>NWTD</i>
<i>Receivables:Inventories(short-term financial ratio)</i>	<i>RECINV</i>
<i>Working Capital:Total Assets(working capital turnover)</i>	<i>WCTA</i>
<i>Total Debt:Total Assets(leverage ratio)</i>	<i>TDTA</i>
<i>Net Income:Sales(return on sales)</i>	<i>NISA</i>
<i>Sales:Working Capital(working capital turnover)</i>	<i>SAWC</i>

Profitability,liquidity,and leverage ratios as figured out above have been tested and successfully justified as the leading ratios for corporate prediction purposes.

The Sample Selection

Companies listed in the Athens Stock Exchange have been selected for investigation in this study.The size of the sample is based on the number of firms appeared in the Internet for one and two years before the event of CSR commencing with the most recently published data on 2008.The total number of firms that reported financial statements published in the Internet is 279 companies for year 2008.Companies which satisfy the presumption of two consecutive years before the event of CSR are 274.Thus far,companies with CSR are 24 in the Internet and they are 23 in the final sample.

EMPIRICAL FINDINGS

In a consideration of means of each variable used in the analysis,results are more illustrative of the differences between groups of companies.Companies with CSR and companies without CSR do not present great differences except variables X_{11} and X_7 when data for one year before the event are used.Obviously,this is an evidence that Sales/Working Capital and Receivables/Inventories will be the most crucial variables in the discriminating process as well as the predictive ability of models employed in this study.When data for two years(one year before and two years before the event) are used means differ between the two groups of companies for variables like X_5 (Current Assets/Sales), X_7 (Receivables/Inventories), X_6 (Net Worth/Total Debt), X_{11} (Sales/Working Capital) and X_2 (Cash/Current Liabilities).

	ALL DATA		OUTLIERS EXCLUDED	
	CSR	NO CSR	CSR	NO CSR
<i>Panel A: One Year Before</i>				
X ₁	0.116	-2.46E-02	0.116	-2.46E-02
X ₂	0.532	1.308	0.532	0.356
X ₃	0.153	9.711E-02	0.153	9.711E-02
X ₄	0.691	0.505	0.691	0.505
X ₅	1.371	1.786	1.371	1.408
X ₆	1.079	3.282	1.079	0.959
X ₇	27.258	107.693	2.693	3.875
X ₈	0.367	0.154	0.367	0.154
X ₉	0.744	0.775	0.744	0.775
X ₁₀	0.148	-0.254	0.148	-0.254
X ₁₁	4.431	-1.184	3.497	1.986
<i>Panel B: Two Years Before (one and two)</i>				
	ALL DATA		OUTLIERS EXCLUDED	
	CSR	NO CSR	CSR	NO CSR
X ₁	8.581E-02	3.671E-03	8.581E-02	3.706E-03
X ₂	0.584	1.373	0.584	0.425
X ₃	0.123	8.589E-02	0.123	8.594E-02
X ₄	0.565	0.463	0.565	0.462
X ₅	1.389	195.394	1.389	1.552
X ₆	1.392	3.289	1.392	1.115
X ₇	26.645	103.349	2.496	3.764
X ₈	0.279	0.163	0.279	0.164
X ₉	0.625	0.686	0.625	0.686
X ₁₀	-0.630	-0.103	0.133	-0.104
X ₁₁	3.878	1.581	2.935	1.772

Table 1: Average Ratios (Means)

A non-parametric method and a suitable one for ordinal data specifies the most significant variables at 5% level of significance. Kolmogorov-Smirnov is an appropriate statistic to test normality. It is of high importance to test normality because outliers may have a big influence. Prior studies have shown that non-normally distributed financial ratios are characterized with the presence of outliers. Worth noting that we have fifty one outliers in variables X₇ and X₁₁ in companies with no CSR in all years under consideration, eighteen outliers in variable X₆ in companies with no CSR, eleven outliers in variable X₂, and nine outliers in variable X₅ in companies with no CSR. Remember that the number of outliers is very small in other studies when the matter of the distributional properties of financial ratios is examined (Deakin, 1976; So, 1987; Karels and Prakash, 1987).

	ALL DATA		OUTLIERS EXCLUDED	
	CSR	NO CSR	CSR	NO CSR
<i>Panel A:One Year Before</i>				
X ₁	1.822(0.003)	3.887(0.000)	1.822(0.003)	3.887(0.000)
X ₂	1.590(0.013)	6.799(0.000)	1.590(0.013)	5.660(0.000)
X ₃	1.378(0.045)	5.411(0.000)	1.378(0.045)	5.411(0.000)
X ₄	1.973(0.001)	4.296(0.000)	1.973(0.001)	4.296(0.000)
X ₅	1.815(0.003)	5.388(0.000)	1.815(0.003)	4.826(0.000)
X ₆	1.218(0.103)	6.747(0.000)	1.218(0.103)	4.008(0.000)
X ₇	1.881(0.002)	6.880(0.000)	1.314(0.063)	3.202(0.000)
X ₈	2.034(0.001)	3.509(0.000)	2.034(0.001)	3.509(0.000)
X ₉	1.679(0.007)	5.415(0.000)	1.679(0.007)	5.415(0.000)
X ₁₀	1.854(0.002)	5.964(0.000)	1.854(0.002)	5.964(0.000)
X ₁₁	0.722(0.675)	6.190(0.000)	0.767(0.598)	1.813(0.000)

Panel B:Two Years Before(one and two)

	ALL DATA		OUTLIERS EXCLUDED	
	CSR	NO CSR	CSR	NO CSR
<i>Panel A:One Year Before</i>				
X ₁	2.300(0.000)	5.211(0.000)	2.300(0.000)	5.188(0.000)
X ₂	2.081(0.000)	9.621(0.000)	2.081(0.000)	8.060(0.000)
X ₃	1.715(0.006)	7.183(0.000)	1.715(0.006)	7.174(0.000)
X ₄	2.420(0.000)	5.411(0.000)	2.420(0.000)	5.396(0.000)
X ₅	2.333(0.000)	11.357(0.000)	2.333(0.000)	6.915(0.000)
X ₆	1.618(0.011)	9.378(0.000)	1.618(0.011)	5.922(0.000)
X ₇	2.496(0.000)	9.824(0.000)	1.857(0.002)	4.215(0.000)
X ₈	2.403(0.000)	4.533(0.000)	2.403(0.000)	4.525(0.000)
X ₉	1.788(0.003)	6.813(0.000)	1.788(0.003)	6.804(0.000)
X ₁₀	3.436(0.000)	8.524(0.000)	2.062(0.000)	8.502(0.000)
X ₁₁	1.145(0.145)	8.006(0.000)	1.232(0.096)	3.259(0.000)

Numbers in parenthesis indicates two tails significance

Table 2:Normality Test(Kolmogorov-Smirnov)

As shown in Table 2 most of the variables in CSR companies are not normally distributed. In contrast, companies without CSR are normally distributed.

The choice of the best fitting model is stressed through a discussion of all empirical findings drawn from a test of discriminant and logit analysis. In each year, a company is observed in one

of two alternative states. Coefficients for each model and for each variable in one and two years before the event of CSR along with the whole data set are given below:

	ALL DATA		OUTLIERS EXCLUDED	
	DISCRIMINANT	LOGIT	DISCRIMINANT	LOGIT
<i>Panel A: One Year Before</i>				
X ₁	-0.629	10.292	-0.770	8.538
X ₂	-0.228	0.944	-0.199	0.410
X ₃	0.187	-2.055	-0.014	-1.333
X ₄	-1.946	3.784	1.534	2.175
X ₅	0.556	-0.835	0.382	-0.803
X ₆	0.377	-0.734	0.493	-0.558
X ₇	0.382	-0.113	0.100	0.000
X ₈	0.868	-2.999	0.611	-1.491
X ₉	1.273	-2.255	1.255	-1.813
X ₁₀	0.260	-0.615	0.151	-0.625
X ₁₁	0.003	-0.012	-0.091	0.001
Eigenvalue=0.055		Eigenvalue=0.042		
Correlation=0.228		Correlation=0.200		
Wilk's Lamda=0.948		Wilk's lamda=0.96		
X ² =9.116		X ² =9.279		
Significance=0.611		Significance=0.596		
X ² =14.667		X ² =17.515		
Significance=0.198		Signif.=0.094		
Wald test=78.621		Wald test=102.761		

Panel B: Two Years Before (one and two)

	ALL DATA		OUTLIERS EXCLUDED	
	DISCRIMINANT	LOGIT	DISCRIMINANT	LOGIT
<i>Panel A: One Year Before</i>				
X ₁	0.802	4.311	-0.539	8.538
X ₂	0.335	0.227	-0.607	0.410
X ₃	-0.011	-0.349	0.460	-1.333
X ₄	1.566	1.299	-1.253	2.175
X ₅	-0.563	0.000	0.412	-0.803
X ₆	-0.584	-0.252	0.191	-0.558
X ₇	-0.110	0.000	0.503	0.000
X ₈	-0.637	-0.809	0.425	-1.491
X ₉	-1.328	-1.067	1.571	-1.813
X ₁₀	0.005	-0.059	0.142	-0.625
X ₁₁	0.054	0.001	0.002	0.001

<i>Eigenvalue=0.030</i>		<i>Eigenvalue=0.042</i>	
<i>Correlation=0.170</i>	<i>X²=15.058</i>	<i>Correlation=0.201</i>	<i>X²=17.515</i>
<i>Wilk's Lamda=0.971</i>	<i>Significance=0.180</i>	<i>Wilk's lamda=0.96</i>	<i>Signif.=0.094</i>
<i>X²=13.574</i>	<i>Wald test=207.680</i>	<i>X²=14.911</i>	<i>Wald test=102.761</i>
<i>Significance=0.611</i>		<i>Significance=0.187</i>	

Table 3 – Regression Coefficients

Wilks' Lamda which is one of the various statistics available for weighting up the addition or deletion of variables in the analysis, is generally low. In discriminant analysis almost all variables contribute marginally (see Table 3) except variable X_4 (Quick Assets/Total Assets) which is the most discriminating variable. Furthermore, the low eigenvalue means that each variable alone can not sufficiently explain the model. In discriminant analysis the significance of the test is a strong evidence which leads to the selection of the best statistical technique. When logit is employed there are many variables that operate as strong discriminating variables but they are not statistically significant. These are X_1 (Net Income/Total Assets), X_3 (Cash/ Total Assets), X_4 (Quick Assets/Total Assets), X_8 (Working Capital/Total Assets) and X_9 (Total Debt/Total Assets).

Once the values of the discriminant coefficients are estimated, it is possible to calculate discriminant scores for each observation in the sample, or any firm, and to assign the observations to one of the groups based on this score. The essence of the procedure is to compare the profile of an individual firm with that of the alternative groupings. In this manner, the firm is assigned to the group it is most closely resembles.

As far as the correct classification, results offered in next Table 4 justify the preference of logit against discriminant analysis. Firms are more correctly classified using logit.

When all data (both years) are used the percentage of correct classification is 92.0% with a logit model and 70.4% with discriminant analysis. When outliers are excluded the rates are 92.2% and 73.8% respectively. In a similar vein, when one year-before data are used results are 92.7% for logit and 74.8% for discriminant analysis. When outliers are excluded the rates are 91.6% and 74.3% respectively.

	<i>Discriminant Analysis</i>		<i>Logit Model</i>	
<i>One-Year-Before(All data)</i>	165(76.7)	50(23.3)	215	0(100.00)
	9(47.4)	10(52.6)	17	2(10.5)
	74.8%		92.7%	
<i>One-Year-Before(Outliers excluded)</i>	125(76.2)	39(23.8)	163	1(99.4)
	7(46.7)	8(53.3)	14	1(6.7)
	74.3%		91.6%	
<i>Two Years-Before(All data)</i>	312(71.7)	123(28.3)	434	1(99.80)
	17(44.7)	21(55.3)	37	1(2.6)
	70.4%		92.0%	
<i>Two Years-Before(Outliers excluded)</i>	255(75.0)	85(25.0)	340	0(100.00)
	12(40.0)	18(60.0)	29	1(3.3)
	73.8%		92.2%	

Table 4: Classification Table for GROUP(Percent Correct-Overall Index)

Even if assets size is included in the models with data either one year before or two years before the event prediction accuracy does not change significantly. This means that size of companies does not play a role in the discrimination between companies that have CSR and those that do not have CSR.

These findings are very close to other business events (i.e. bankruptcies, mergers and acquisitions, liquidations, auditors' switching, etc.). Based on the above empirical findings, it is suggested that the prediction model is an accurate forecast of the event of CSR. Finally, normality in data sets played a role in the success of one versus the other model since the moderate degree of normality led to logit rather than discriminant analysis.

CONCLUSIONS AND SUGGESTION FOR FUTURE RESEARCH

In an application of two dichotomous models that tested both the determinants of a dichotomous choice in an infantly investigated area of research in a specific country and worldwide the robustness of two widely used models indicates that the business event of CSR can be predicted by a rate higher than 90.0% using a logit specification. The discriminating factors between the two groups of companies are mainly variables X_1 (Net Income/ Total Assets), X_3 (Cash/Total Assets), X_4 (Quick Assets/Total Assets), X_8 (Working Capital/Total Assets), and X_9 (Total Debt/Total Assets) but they are not statistically significant at 5% level of significance. They are statistically significant at a higher level of significance. What is suggested in the literature is that it may be more fruitful to consider financial performance as a variable influencing social responsibility than the reverse.

This study used data from listed companies. The situation would be different in the case of no listed companies. This is a matter for future research since the business environment would be changed. Another avenue for future research is to study whether profitable companies have more CSR than companies with losses or reduced sales.

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**WHAT REPORTING FOR THE GLOCAL ENTERPRISE?
ISSUES RELATING TO SOCIAL AND PERFORMANCE REPORTING IN
BUSINESSES AND INSTITUTIONS IN LOCAL AND GLOBAL CONTEXTS**

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In socio-economic areas, the “glocal” model which mediates characteristics of globalization with those of more deep rooted localism, seems to be flourishing. Governed by its own principles, it is radically changing the logics of business management. When can a business be defined glocal? And how can glocal management be defined, taking into account complications arising from the simultaneous presence of global, local and glocal functions? How do the effective needs for communication change on the part of enterprises present simultaneously in different areas? And above all, can economic and financial communications addressed to broader, heterogeneous areas be covered by a single Financial Statement? Would it be feasible to overcome the “prism effect” with a “concertina” format Financial Statement flexible and adaptable to the contingent needs of the different phases? Should we presume that stakeholders are mere spectators of property tax and legal communication, or is it feasible that they can become proactive “prosumers” of the Financial Statement?

Keywords: Glocal enterprise, Financial Statement, Socio-economic communication.

INTRODUCTION: THE “PRINCIPLES” OF GLOCALISM

In the scenario of the complex phenomenon of globalization, economics and business studies are virtually collocated between two extremes.

On the one hand, the standardized lifestyles approach linked to its relative scenario of productive assets, investments and consumption¹³⁴.

On the other, the ability to accentuate and exalt traditional differences and as a result, logical processes and procedures for value creation.

A model of production and consumption positioned between these two extremes appears to emerge in which simultaneously, the innovative aspects of globalization are combined with local traditions, frequently factors of effective competitive strategy.

There are many complex causes underpinning this model which appears to mediate elements of globalization with those of more deep-rooted localization.

¹³⁴ Said LEVITT, *Globalization of Markets*, recur in LEVITT, *Ted Levitt on Marketing*, from p. 133: “The world’s needs and desires have been irrevocably homogenized ... Companies must learn to operate as if the world were one large market – ignoring superficial regional and national differences”.

Certainly the resulting “glocalism” issue raises questions in socio-economic, corporate communication and public administration contexts.

In the first instance, problems of definition arise as concerns “Glocal” in general terms and as regards the actors of economic competitive enterprise in particular.

‘Glocalism’ or ‘glocal’ a neologism, coined in the 80s in Japan, became common usage in Britain thanks to the sociologist Roland Robertson¹³⁵ and was later used more extensively in a professional sense by Zygmunt Bauman¹³⁶ to mediate the demands of globalization with those of local realities. Founded on principles and ethical values, the concept reflects a simple to complex sequence. Individual and group centred, it considers both material and immaterial features of local heritage fundamental, placing the local community i.e. personal relations and the interaction of individuals in terms of community “subsystems” of more complex organizations. The economic issue implies production of goods and services designed for the global market, but adapted to local laws that require procedures that can be summed up in the slogan: think global, act local¹³⁷.

A free global market is therefore instrumental to the needs of the individual, the protagonist of a micro group which expands, develops and interacts with other more complex scenarios, until culminating in the reality of globalisation.

The global and the local can coexist¹³⁸, the former can be considered the evolution of the latter; in other words, a complex system that preserves the original local structures¹³⁹.

In such a complex context, firms need to devise managerial perspectives and competence that are totally different compared to those applied in local or international¹⁴⁰ scenarios, or on the contrary, typically international contexts.

Meanwhile the government and in particular, local authorities are called upon to perform new functions in social areas traditionally under their supervision besides supporting productive activities.

The outcome is the need for innovative methods of communication on the part of enterprises and local authorities addressed to these new categories of stakeholders or, to traditional categories albeit made up of actors characterised by unusual or peculiar¹⁴¹ traits.

¹³⁵ ROBERTSON, *Globalization*.

¹³⁶ BAUMAN, *Globalizzazione e GLOCALizzazione*.

¹³⁷ See ONKVISIT, SHAW, *GLOCAL advertising*, and CHAMPY, *Think globally, sell locally*.

¹³⁸ “L’approccio glocale è caratterizzato dall’incontro e dal dialogo fra attori globali e attori locali, nella prospettiva della costruzione di una maggiore forza negoziale comune: la ricerca di convenienze e interessi comuni fra luoghi e flussi globali per la realizzazione di progetti di cooperazione”, from the web site of the association Globus et Locus (www.globusetlocus.org, consulted July 25, 2009) that promotes the analysis of glocal issues emerging from the dialectic between global and local translating them into strategic actions.

¹³⁹ Some organizations have been working for years in the spirit of globalization. Among these, the *glocal Forum*, active since 2001 for cooperation between cities (www.glocalforum.org).

¹⁴⁰ Also part of Italian culture is sensitive to the socio-economic phenomenon, considering also the actual involvement of many firms (see: VACIAGO, *Piccole imprese in un mondo «glocale»*; PRETI, *Azienda glocal*; TARDIA, *Glocalizzazione*; D’AGOSTINO, *Glocalismo*; SEDDA, *Glocal*, AMATO MANGIAMELLI, *Glocalizzazione*). Also be noted that studies on social capital and human relations with the company have a clear common with the centrality of individual and group membership typical of glocalism (see RICCI, *Capitale sociale ed umano*, from p. 193, and references cited).

Table 1: The "Principles" of glocalism

<p>Premises</p> <p><i>Technology changes the ideas of time and space and has unified the world;</i></p> <p><i>Innovation facilitates the encounter between knowledge and power in order to create values;</i></p> <p><i>Innovation means new opportunities but also threats;</i></p> <p><i>Mobility dominates over permanency, consequently it develops relations that are independent of territories;</i></p> <p><i>Relations without boundaries change the meaning of places and open up new relationships between the global and local: the global penetrates all loci and every locus is part of a global dimension;</i></p> <p><i>The new glocal world is destined to be the world of every population;</i></p> <p><i>Glocalism should not mean stateless uniformity, imbalance, eco-drama;</i></p> <p><i>New policies, new institutions and new powers are needed;</i></p> <p><i>To benefit from global and to defend local needs no borders, citizen-ship/nationality or sovereignty;</i></p> <p><i>The end of nationalism does not mean the end of ethnic and regional cultural identities;</i></p> <p><i>Managing mobility and the territory calls for new political relations;</i></p> <p><i>In mediating between coexistence and economics, the central institution is the firm regulated by global markets where it operates in functional networks linked on a global scale;</i></p> <p><i>These functions determine the mobility of goods, people and relations that are often detached from the territory and therefore difficult to regulate by traditional institutions;</i></p> <p><i>New glocal institutions capable of linking global firms and local business people, can mediate between the global economy and local coexistence.</i></p> <p>Claims</p> <p><i>A new statehood in which individuals, different races and nations can live together on an equal footing;</i></p> <p><i>Territorial communities free from local or national influence;</i></p> <p><i>A new citizenship based on multi-membership: the possibility, for all to feel cosmopolitan, Italians, Europeans, Mediterranean, Catholics, Muslims, liberals, socialists, etc. without losing their sense of political identity;</i></p> <p><i>The opportunity to operate freely in the rich and dynamic structure of functional territorial networks</i></p> <p><i>New cosmopolitan governance essential for ensuring in a glocal world, a clean environment, peace, rights and justice.</i></p>
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141 A detailed list of the main stakeholders of an undertaking is proposed by RICCI, *Bilancio degli alberghi*, from p. 108. Tourism is a sector where glocalism is very important and has even greater potential; see: BOOKIN BLOG, *Glocale, Il futuro linguaggio del web*, and *Il futuro linguaggio del web*; and also SALAZAR, *Tourism and Glocalization*.

Aims

To create innovative currents of thought, institutions and strategic policy as guidelines for the stakeholders/ actors of the new glocal era;

Create new relationships between the permanency and mobility of goods, persons and ideas;

Devise rules of coexistence that reconcile efficiency and democracy in the new functional/practice communities on a global and local scale;

Reorganize territories especially in relation to the newborn glocal-cities where innovative complexes of functional networks meet up with pre-existing citizen groups;

Create new institutions/powers and above all, new levels of meta-national statehood.

Glocalize institutions (Chamber of Commerce, Banks/Foundations, Provinces, Regions, to improve coordination with multinational groups, large banks, groups of small and medium enterprises undertaking the glocalist challenge;

Link the thousands of partnership structures and local services with the glocal scale web of crosscutting functional networks;

Train new generations for new challenges.

Source: adapted from Bassetti, Manifesto dei glocalisti.

“GLOCAL” ENTERPRISE?

The complexity of the “glocal” scenario *tout court* necessitates identifying firms which are “glocal”.

The issue is whether economic parties can be distinguished from local and international companies, or rather, whether “glocalism ” can be considered mainly a form of partial internationalism in which companies gradually address generally wider contexts and preserve deep roots or otherwise, in their territory of origin¹⁴²?

As concerns “glocal” enterprise, what parameters can be considered when defining the category in terms of the organizational and management features that render it a stable form of productive entity?

Applying a merely functional approach could lead to defining as “glocal” a business that applies at least one global functional strategy alongside other “local” strategies...

Together with organizational processes and logics rooted in a specific territorial area, the globalization of marketing strategies (or more simply, marketing) prospects well-known strategies and practice¹⁴³.

¹⁴² See the main theories of international trade and the internationalization of enterprises, in MARINO, *Impresa e relazioni internazionali*, from p. 38.

¹⁴³ Subject to its guiding principles, the globalization seeks to preserve the individual identity within a complex system. In marketing, “glocalization” means therefore compared the characteristics of the local product in the global market when it proposed setting up his own niche and, conversely, local needs than by the overall product that can adapt (including related services) to the peculiarities of local demand. For the necessary depth, see: FOGLIO, *Glocal marketing*; YOUNG, *Glocal marketing*; SVENSSON, *Globalization of marketing activities*; THOMPSON, ARSEL, *Experiences of Glocalization*.

Likewise for companies that besides globalizing supplies or sales, also globalize production processes by locating businesses in different areas.

In other words, traditional multi-domestic strategies based on exports or productive decentralization normally precede transnational or homogeneous¹⁴⁴ global strategies.

These strategies however, do not identify specific “glocal” trends that qualify a business as such, classifying it among the ethnocentric, polycentric, geocentric region-centric kind¹⁴⁵ or those in categories which classify businesses as global, transactional, corporate and multi-local¹⁴⁶.

A more logical and perhaps more satisfactory focus might be addressed to strategic choices of a strictly “glocal” nature which could help to define the business as such¹⁴⁷.

However, this is a very vast and varied category taking into account that potential combinations between local and international functions could be many and characterised by differing grades of glocalism.

WHAT MANAGEMENT FOR GLOCAL BUSINESS?

The diverse nature of glocal companies makes it difficult to identify specific features of their management which is usually characterised by the firm’s global functions both on a local and global (glocal) scale and the acknowledged glocal direction of its strategies.

The glocal business approach confined to purely global marketing functions and combined with local management has much in common with traditional models of management. On the other hand, the scenario is different where the human resource factor/element involved in the production process is global not only in terms of delocalized plants but also in terms of local firms that rely on workers of different ethnic, and cultural status, who have to coexist in a unique production context. In this case, the logics of diversity management are better suited compared to the more traditional standardized type of management¹⁴⁸.

¹⁴⁴ PORTER, *Competizione globale*, p. 19

¹⁴⁵ BERTOLI, *Strategie internazionali*, from p. 67.

¹⁴⁶ *Ibidem*, from p. 71. See also BUCKLEY, GHOURI, *Globalization*.

¹⁴⁷ “Strategic management in any type of organization ... has got a new dimension today. This dimension is the all too familiar ‘glocal’ vision. Well, what is really interesting and worth analyzing for all managers, leaders and entrepreneurs of today’s progressive, knowledge-based corporations, is that this ‘glocal’ element is now an indisputably imperative ingredient for all successful organizations – in different flavours, of course!”; KRISHNAN, *Glocal in Organizational Strategy*, p. 1, concluding regarding (p. 11): “Hence, it may be concluded that most successful organizations leverage the ‘glocal’ concept when it comes to mission, resources and geographical locus and control. This is what makes any organization follow the ‘glocal’ strategy. I have therefore formed the following acronym for ‘glocal’: Global Long-term Objectives Customized to Assets Locally, where the explanation to each of the keywords is given in the following depiction”. For further details see also SVENSSON, *Glocalization*.

¹⁴⁸ In recent years in Italy and abroad are spreading studies on topic. See, among others: CUOMO; MAPELLI, *Diversity management*; MAURI, VISCONTI, *Diversity management*; ARREDONDO, *Diversity management*; COX, *Cultural diversity in organizations*; KANDOLA, FULLERTON, *Diversity in action*.

Even the combination of local traditional financial sources with instruments raised on international markets can result in so-called glocal finance management, which evidently demands appropriately suitable and flexible professional expertise¹⁴⁹.

It is impossible to identify a priori specific features of management of glocal businesses without identifying beforehand, local, global and glocal functions.

What is certain is that a comprehensive global approach coexisting permanently with a local approach demands a mentality open to both innovation and tradition¹⁵⁰ inspiring specific organization, mediated between deep rooted conservative habits and stimuli deriving from a 'global approach.

The logical consequence of these considerations is the expanding of categories of stakeholders in terms of dimension and importance as the case may be, in relation to the extent of global and local elements simultaneously present. In addition to local stakeholders characterized by well known features, global stakeholders need to be taken into proper consideration when undertaking the managerial choices necessary (Table 2). This has repercussions naturally, on choice in a communicative-institutional, commercial and financial terms and in a more general, socio-economic sense.

WHAT COMMUNICATION FOR GLOCAL BUSINESS?

The preservation of "local" in a global context is accomplished by extensively analysing content for the purpose of protecting individuals and groups.

New technologies in effect, have the merit of universalizing information, but they often distort it and favour the superficial standardization of language, the latter being the primary element to preserve of any culture. In other words, what is needed is not translations, but rather deep structured cultural and linguistic adaptation.

This also applies to websites and Internet communications a primary vehicle of globalization, communicating with users through familiar expressions and figures of speech: what should be avoided are culturally distant messages addressed to segments of users having limited computer literacy, who are strongly oriented towards local scenarios and are destined to be potential users of the network services¹⁵¹.

Glocal communications should therefore take into account:

- a. the vast variety of stakeholders from different local and global backgrounds;
- b. the need to preserve local languages, while at the same time, encouraging global communication.

149 Even banks can be glocal companies. See GRANELLI, *Glocal banking*, and the strategic guidelines of the Antonveneta bank outlined in PEGHIN, *Antonveneta banca «glocale»*.

150 See: BEUKEMA, CARRILLO, *Globalism/Localism at Work*; BEUKEMA, *Work restructuring as ongoing glocal processes*; GONZALEZ, *Middle management in ottica glocal*; RICHINS, *Glocal business management*; and especially SHI, *Organizational factors of globalization and localization*.

151 BOOKIN BLOG, *Glocale, il futuro linguaggio del web*, and, from the same web site: *Il futuro linguaggio del web*.

It is clear that mediation is problematic because globalization tends towards standardization and a single language, while conversely, localization favours the preservation of typical local idioms.

However, mediation is necessary and feasible for many areas of corporate, institutional, managerial, marketing and economic-financial communication¹⁵².

As concerns institutional communication, mediation is fundamental seeing as relations with the public are involved. Another factor to be taken into account is that this type of communication contributes to building the reputation of the institution, attributing to the latter uniform features even though the means of communicating should adapt to the specific practices of each place.

A unified reputation and a unified image throughout the world could result from easily understood messages communicated across different cultures.

A website for example, the first medium for presenting a firm should use colours, music and images in line with the expectations of an area: not simply one site in many languages, but a number of sites directly proportional to the areas of interest.

Similar principles of communication should guide management directly responsible for relations with the parties involved in the administration of the company.

A need for glocal communication arises especially when the actors involved belong to different ethnic, cultural and ideological backgrounds regardless of where the business units are situated.

Communication in this case, should be regulated within the context of diversity management which enhances diversity by means of unequivocal guidelines/resolutions adapted to individual characteristics.

However, the most complex kind of communication is that of glocal marketing which has to provide perceptions of corporate supply value to markets that might well have extremely different characteristics.

The promotional mix and in particular commercial communication policies, need to have a common perspective, specifying what content to share in each area, how to communicate, and above all the consistency with other "images" of the company.

The importance of this form of communication is strictly connected to glocal marketing which inspires it.

Under-researched and certainly in need of further reflection, however, is communication dealing with economic and financial relations with investors to whom patrimony, financial and income balances have to be reported and accounted for.

In conclusion it is feasible to emphasize the essential role internal and external communication plays in a glocal company taking into account the many different

¹⁵² The classification is in BOCCARDELLI, MARCATI, MARCHIGIANI, *Strategie e politiche di marketing*, from p. 306.

stakeholders¹⁵³ involved. External sources communicate the various opportunities offered to customers / users in global and local areas and at the same time, collect input on potential improvements, proposing different operational perimeters which are (more or less circumscribed).

Frequent managerial changes characteristic of glocal strategies need to be communicated promptly to avoid prejudicing institutional reputation on the markets.

Meanwhile, internal communication, enhances the wealth of information possessed and disseminates the priorities identified by the different "sensors" of the organization.

Internal communication also facilitates the updating of core and peripheral actors and the circulation of news throughout the glocal circuit. Internal stakeholders contribute directly to the provision of institutional goals: organizational changes are consequently more easily assimilated as they are the express manifestation of emerging needs. Internal communication becomes a tool for understanding and promoting change, favours a common vision of the value of the job, and spreads a sense of belonging, enhancing and motivating staff in a positive and sought-after context.

In short, the benefits of accurate and appropriate communication are extended considerably in glocal realities.

WHAT FINANCIAL STATEMENT FOR GLOCAL BUSINESS?

The increasing number and type of stakeholder and the need inherent in the ethical principles of glocalism to preserve local languages pose serious problems for accounting procedures which fundamentally, are difficult to resolve.

A preliminary issue involves identifying to whom Accountancy Reporting be addressed. The question is should the range of recipients for reporting be limited exclusively to particularly competent, qualified individuals whose expertise already includes global knowhow?

A single universal accounting language in this case, might be a practical solution, acceptable also to glocal companies willing to trim the range of stakeholders involved. However, this solution would circumvent the need to respect the local language considered in terms of convenience merely marginal, but it would also invalidate the fundamental function of the Financial Statement, i.e. that of addressing all stakeholders, regardless of dimension and extent of globalization and consequently, their degree of international accounting literacy.

The outcome would be the cancellation from the range of potential users: the countless small retailers, clients and employees by limiting access to the Financial Statement to banks, large investors or customers / suppliers with an international dimension. However, this pathway appears extremely reductive and simplistic, especially in a productive fabric characterized by a large population of small operators traditionally bound to local accounting procedures.

¹⁵³ Further reading: TETTAMANZI, LUONI, FOSSATI, *Comunicazione con gli stakeholder*; and GRAMIGNA, *Comunicazione per la pubblica amministrazione*.

Consequently, the general establishing of international accounting standards imposed by the major economic powers appears to be the result of the logics of globalization, which however, are hardly compatible with those of glocalism.

The feasibility of currently implementing simplified accounting standards in Italy¹⁵⁴ that in any event tend to crash with local traditions, puts another focus on the issue without however, prospecting an effective alternative. On the other hand, nationalistic approaches in favour of conservation of traditional economic-financial communications would certainly clash with the requirements of internationalism. The proposal of adopting a unique Financial Statement implementing international accounting standards accompanied by balance sheets drawn up with local logics in the relevant areas of interest involved would be a highly impractical solution, especially taking into account that financial statements drawn up on the basis of diverse criteria would logically, ascribe substantially diversified incomes and consequently, mixed patrimonial patterns both on a qualitative and quantitative scale. Even the project of compiling a “glocal¹⁵⁵” language glossary as the outcome of the complex mediation between radically different modes of representation would be a hazardous task, given the wide gap separating the various approaches. The distance between the “Great Wall of China¹⁵⁶” and “Hadrian’s Wall¹⁵⁷” aptly describes the two perspectives; a plausible risk of colonisation in value terms could also result merely because of widespread diffusion over vast areas. Consequently, as concerns Accountancy in the first instance, the problem appears extremely difficult to resolve unless the so-called “prism effect” of the Financial Statement can be overcome and a category devised for classifying its “prosumers”...

Ethical and social accountability¹⁵⁸: also need to be taken into account: ethical principles, including those of localism call for ethical and social accountability in support of traditional type Financial Statements or their equivalent. In drawing up a balance sheet/Financial statement the most problematic issues are those linked to corporate identity and corporate mission played out on different stages and consequently linked to scenarios and contexts of a widely differing kind. As a result, social relations need to be far more structured and elaborate.

The number of stakeholders furthermore, renders their effective involvement problematic (a complex scenario even in more circumscribed contexts). A survey of their number would be useful especially if the involvement on the part of stakeholders right from the start of the accountancy project were envisaged as opposed to their merely taking note of judgments and opinions on the issue.

In conclusion, some relevant considerations concerning the relations between enterprise and the public administration, would also not be out of place seeing as the latter is obliged to move in a glocal perspective.

Is it still feasible nowadays to define as “local” the different local authorities or entities. The characteristics of their intercultural, ethnic cosmopolitan background are neither compatible

154 PROVASOLI, VERMIGLIO, *Modifiche del bilancio di esercizio: il progetto Oic*.

155 A kind of “Anglo-Esperanto” in accounting.

156 DEZZANI, *IAS*, p. 105.

157 RICCI, *Immobilizzazioni materiali*, p. 456, note 5, in the 2nd volume.

158 Among the many contributions of the Italian doctrine see: MATACENA, *Bilancio sociale*; VERMIGLIO, *Bilancio sociale*; RUSCONI, *Bilancio sociale ed economia aziendale*; HINNA, *Bilancio sociale*.

with domestic and/or “provincial” issues calibrated on the safeguarding of specific ‘local’ culture nor with that of the digitalised provision of services where contingent relations are enacted on a global scale.

It should be asked what kind of communication is expected by the public (the various categories of public) or at least the informed public, from state institutions generally speaking, seeing that cities which have changed radically, are now also glocal¹⁵⁹. Furthermore, what relationship can and must be established between glocal enterprise communication and communication on the part of the public administration, frequently called on to support economic activities?

FINAL CONSIDERATIONS

How can the «the prism effect» of the balance sheet be overcome?

In the context of international marketing the prism effect (as opposed to Newton’s traditional perspective) expresses the deformity of judgement on the part of potential foreign consumers caused by the environmental variables affecting the positioning of a product¹⁶⁰.

In accountancy studies the prism effect image can best be utilized to delineate the practical choice of a single balance sheet/financial statement capable of satisfying the different needs of the company’s stakeholders: a unidirectional flow of information taking on different syntax and values in relation to the diverse needs of the parties involved (Table 3).

The limits of such a choice are evident: practically speaking, it is impossible to satisfy everyone and in any event, there will always be one or more categories of privileged users who benefit more than others from the method of financial reporting adopted¹⁶¹. Traditionally, while aware of penalizing imbalance for some operators, the option has always been for a single financial statement, considering the use of alternative forms to meet the needs of different groups of users, operatively speaking, far too complicated.

Can such a practice still be envisaged for glocal enterprise, taking into account the far wider range of categories of public involved, not to mention their diverse needs and different characteristics?

Limits, tolerable in the past, are no longer acceptable and more appreciable solutions are needed (taking into account widespread business management culture) to facilitate the current extremely rapid processing of data accountancy,

unheard of in the past.

¹⁵⁹ See SAONARA, *Città globale*; and BARONI, *Città nell’era digitale*.

¹⁶⁰ VALDANI, *Scelta del prodotto*, from p. 216 (and references cited therein), where he distinguishes between transparent, amplifying, distorting and reducing effect.

¹⁶¹ In the European financial statement, adopted also by Italian civil law, have been privileged creditors. In the Anglo-Saxon model inspired to IAS/IFRS are protected especially current and potential investors. A detailed comparison is available in DEZZANI, *IAS*.

Reflections should be made on the effective devising of an “open¹⁶²” balance sheet/financial statement, made up of a basic schedule and various appendices of potential data for compilation in conformity with the needs of different users, which to date has been envisaged merely as an academic hypothesis.

In reality, the practice of appending a schedule of patrimonial assets together with other useful accounting data is common in the documentation of many firms. This is often mandatory to conform to national regulations imposing more frequent, more articulated and more comprehensive exhaustive communications. It would not be difficult to impose such practice in international contexts. This would then create uniform criteria for full financial reporting, diversified on the basis of the principal categories of beneficiaries.

A basic schedule consequently for compilation – effective and estimated data together with any supplementary information in conformity with the purpose of the document¹⁶³ (table 4).

Naturally a transitional period would have to accompany such radical innovation in financial accounting for specialist operators and beneficiaries of the information to become familiar with it. The redundancy of the prism effect of the financial statement consequently, would appear to be quite complicated, but technically possible.

A “prosumer” for financial reporting?

The reflections induced by the glocal scenario towards an “open” system of reporting can be synthesized in the need for more flexibility in financial balance sheet communication to meet the needs of the many different users. Such flexibility is fully in line with the new direction taken by the international accounting standards IAS/IFRS for Financial Statements that envisage the adapting of balance reporting to information needs, while respecting a required minimum content¹⁶⁴. Freedom of expression, after years of strict adherence to formal guidelines offers numerous opportunities. On the horizon, flexibility may be the answer for effective

¹⁶² Proposed and supported by CAPALDO, *Informazione esterna d'impresa*, from p. 169: “A mio parere si potrebbe pensare alla predisposizione di un bilancio per così dire «aperto», di un bilancio la cui composizione resti affidata alla persona che deve utilizzarlo ed alla quale naturalmente occorrerà dare i necessari elementi di base. (...) Nel bilancio (...) si iscriveranno solo le quantità oggettive e talune quantità nominali (...), cioè quelle la cui determinazione non richiede stime ed apprezzamenti di alcun genere. Viceversa, le poste connesse con quantità aventi diversa natura verranno per così dire lasciate «in bianco». Per ciascuna di esse si dovranno fornire gli elementi necessari perché si possa, di volta in volta, procedere alla loro corretta determinazione in aderenza allo scopo per il quale il bilancio viene composto”. Similarly in CAPALDO, *Bilancio e informazione esterna*, p. 267: “(...) si può esplorare l'ipotesi di un bilancio, per così dire, aperto. L'idea che ne è alla base è molto semplice e consiste nel comporre il bilancio in modo ch'esso fornisca non un «risultato» d'esercizio ma gli elementi indispensabili perché il lettore possa costruire il «tipo di risultato» che ritiene conforme alle sue esigenze di conoscenza e, al tempo stesso, possa trarre tutte le altre informazioni sulla situazione economico-finanziaria dell'azienda, comunemente richieste ad un bilancio”.

¹⁶³ “È ormai pacifico, nella dottrina, che le valutazioni di bilancio e, più precisamente, i criteri di queste valutazioni, possono mutare secondo i fini per i quali il bilancio viene composto o, per dir meglio, secondo le conoscenze che dal bilancio si vogliono trarre. Senza la specificazione dei fini, intesi in questo senso, non è possibile comporre o interpretare logicamente alcun bilancio”, see ONIDA, *Bilancio d'esercizio*, p. 4. Similarly AMODEO, *Bilancio*, p. 236: “È universalmente noto, e non mette conto insistervi qui, che il bilancio non può rispondere, in un'unica struttura, ad esigenze diverse. (...) Poiché i criteri di valutazione si conformano al proposito del bilancio, a propositi diversi corrispondono diversi criteri di valutazione. Talché il risultato profferito dal bilancio discende da quelle finalità e dai corrispondenti criteri”.

¹⁶⁴ See MIGLIACCIO, *Schemi di bilancio*; and *Schemi di rendicontazione*.

communication that highlights the peculiarities of any organisation in a given period, and in response to the needs of their stakeholders.

Wider dissemination of accounting skills could result in the now merely utopian scenario of financial statements agreed upon with the users, the latter no longer seen as passive recipients of information required by law or chosen by top management at the pinnacle of the pyramid.

Differentiated, flexible methods of financial reporting, meeting minimum conditions set out by Italian legislation, could be devised from constant interaction between the company (companies or local authorities) and the beneficiaries of the information. The stakeholders logically would become so to speak, "prosumers", "consumer-actors"¹⁶⁵, producers and consumers of the financial information that interests them (Table 5).

The practice could be extended, to the compilation of Financial Statements and economic assets envisaging an active role on the part of stakeholders - already common in the productive manufacturing sector - and frequently invoked for the compilation of social statements in order to avoid self-reference.

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¹⁶⁵ FABRIS, *Societing*, from p. 265.

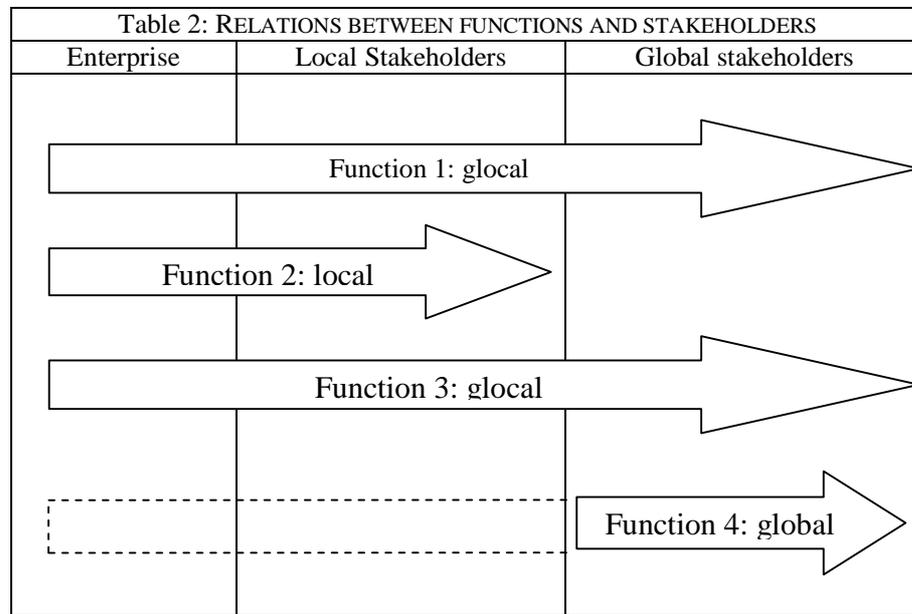
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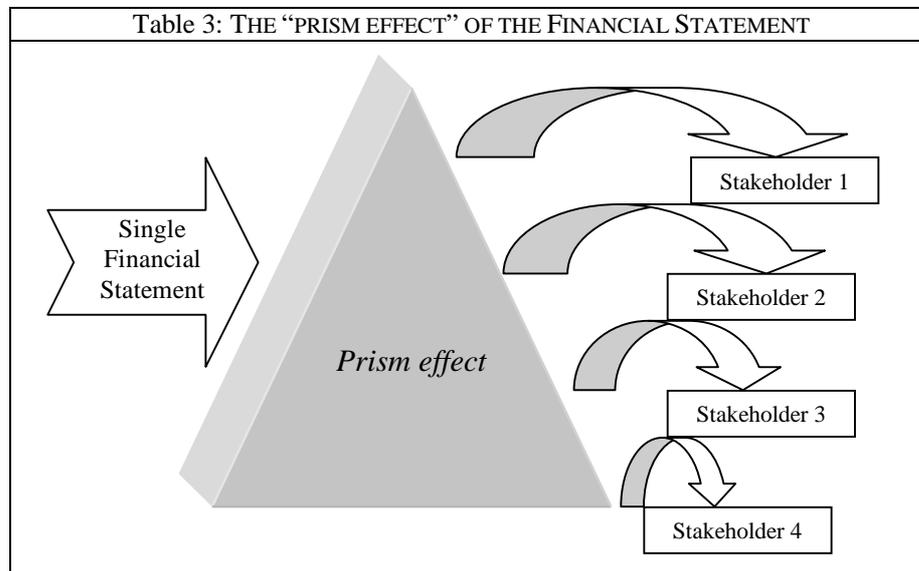
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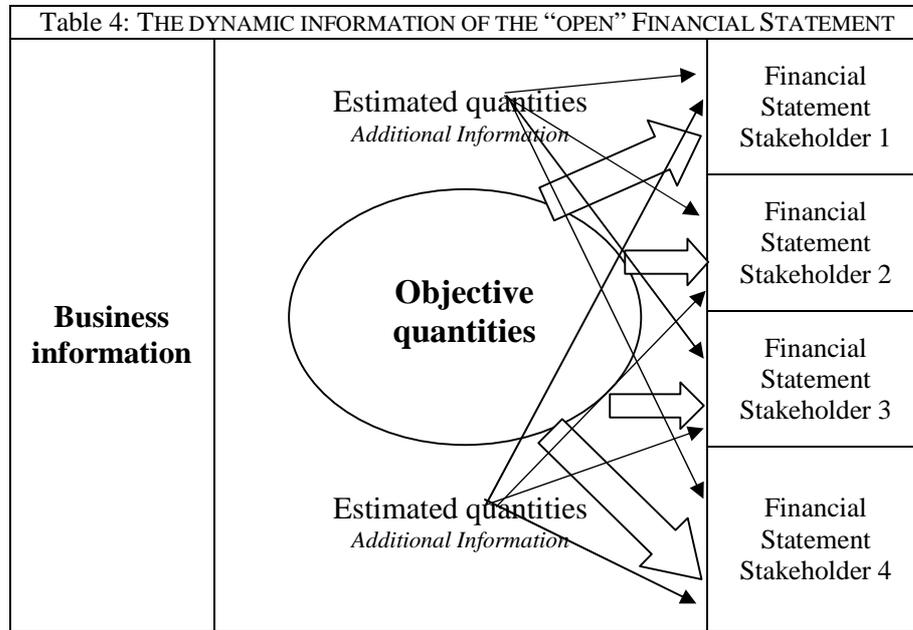
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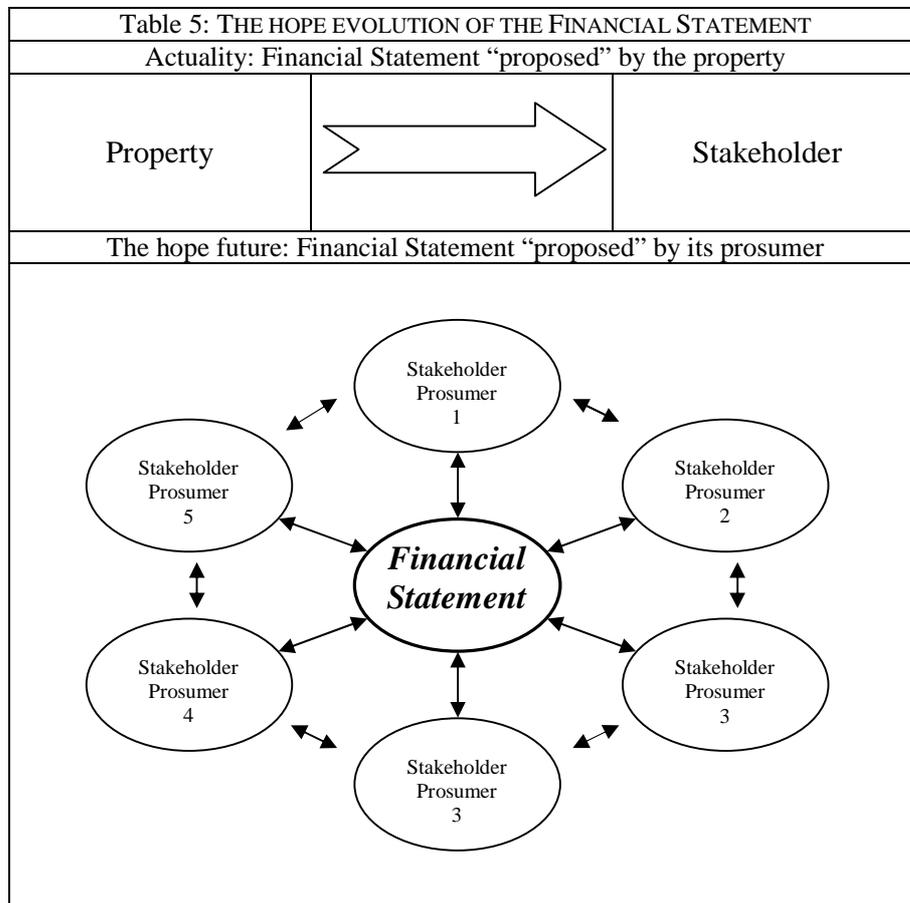
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HISTORICAL CHALLENGE OF CORPORATION ADJUSTMENT: LOGISTICS STRATEGY AND SUSTAINABILITY

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Scope: To assist understanding of the supply chain management (SCM) and supply chain strategy (SCS) and to promote performing implementation for succeeding a value creating process, dynamic competitive advantage and sustainability.

Methodology: First, a brief historical survey of the emergence of logistics discipline and its advance to SCM and SCS, following changes in actual business conditions and the New Information Technology. Second, a literature review on the SCM and the development of the SCS. Third, engagement more particularly with the issue of terminology concerning the concepts of SCM and SCS and the most relevant ones, such as systems, strategies, systemic and strategic thinking, etc. Fourth, examining more specifically the long dominance of the conventional positive deduction approach and hypothesis testing, against induction, abduction, and constructive participatory action approach, modern mixed methods and knowledge management. Fifth, direct analysis at network level upon the interdisciplinary character of the SCM and SCS and a holistic approach based on a value creation process of integrated planning (cost/benefit analysis, a feasibility study, a business plan), stressing the critical role of collective action, alliances, strategy to performing goals implementation, coordination, information net, formation of a feedback process. Sixth, preliminary results of a survey concerning the logistics services providers (3PL) in the Attica area, Greece, with focus on the segmental logistics services outsourcing and the need for integrated value SCS. Seventh, basic conclusions of the study for supporting the formation of SCM and application of performing SCS, for restoration of equal chances to the SMEs along with infrastructure and incentives policies.

Main outcomes: Better understanding of the advancements in SCM and SCS and improvement of the research validity in strategic thinking for the planning process and performing goals implementation. Expected benefits in reducing the risks of failure and achieving sustainability through improving capabilities from restoring SCS role in performance. Presentation of the preliminary results concerning the use of SCS by companies in the Attica area, Greece.

Originality: No claim of own ideas, but utilizing synthetic collective action, know-how and experience, for mobilization of all available resources, improving capabilities and successful facing the contemporary challenge of adjustment to the new landscape of corporation environment. Attributing special importance to the critical role of SCS for a value creating supply chain process and to foundation of a collective think-tank for technical assistance to design, planning and performing implementation in support of SMEs to achieve equal chances as safe-valve to competitiveness and sustainability. Expectation of drawing actual experience from a responsible collective after sales service consultancy initiative (recent Italian Universities partnership).

Key words: Supply Chain Management (SCM). Supply Chain Strategy (SCS). Sustainable Competitive Advantage (SCA). Integrated Supply Chain Management (ISCM). Business Process Re-engineering (BPR).

INTRODUCTION

The area of SCM along with SCS has become very popular in recent years. This is evidenced by marked increase in practitioner and academic publications, conferences, professional development programs and university courses (Burgess et al, 2006). SCM along with increasing attention within strategic management and recent empirical research in strategy has much to offer (Cheng et al., 2006). To avoid prolixity, it is useful to mark the most important issues with which the literature has been engaged and succinctly to avoid duplications, there are sufficient references and focus to some of the most unresolved yet issues, such as the methodology and the strategic issue. In view of lack in theory and presence of rigidity in traditional methodology in the research of SCM, as a field in infancy, this study addresses mainly to practitioners and attributes special attention to the methodology in a particular way. Since SCM has been developed along with the changes in the actual conditions of transactions and technology: first, it is engaged with the historical dynamic pace of the advance of logistics to SCM followed by the SCS. Second, it presents the main points of the literature review by academicians. Third, it refers to the issue of definition of the SCM, SCS and related concepts, as means to meet the requirements of customer satisfaction and creating value through inter-firm integration. Fourth, the same procedure is followed, with the research methods that have been used, again according to the literature review. Fifth, an integrated analysis is carried out by use of holistic approach, pointing out critical success factors such as collective action, alliances, strategic thinking, coordination and performance criterion. Sixth, it presents the preliminary results of a survey study in progress, concerning how the supply chain strategy (SCS) is perceived and applied in Attica major Athens area, Greece. Finally, a series of conclusions are drawn, with focal attention to the correct planning and implementation of SCM and SCS for succeeding compound sustainable competitive advantage for all allied partners in a value supply chain (Blankenburg et al., 1999).

This structure and intermix penetration in this study is expected to help its main scope of contributing, at least, towards overcoming still misconceptions and misunderstandings and the problems of research validity and rigidity. Insofar, as paucity or misuse is due to misinformation especially of SMEs, then there will be a loss of validity and possibly have adverse long-term effects, an often gap in 'revolutional' or 'innovative' contributions, due to lack of contact with actual reality and requirements. The research conclusions in retrospect can give useful thinking on how to improve performance in terms of dynamic competitive advantage and sustainability.

This research as a whole may reasonably be expected to facilitate better understanding and contribute in promoting the strategy formation and performance in implementation of change business plans; to meet the major contemporary challenge of adjustment to the new landscape of transactions and technology environment.

Sufficient bibliography is presented to help further detailed information concerning the enhancement of Logistics to the SCM and SCS.

HISTORICAL SURVEY

In view of that the field of SCM and SCS are passing through the infancy stage, the historical knowledge of the emergence and rapid advance in application seems to have significant practical importance. A brief review of this historical pace follows in this paper, without

reference to the controversy of the historical school and the anglo-saxon theoretical school of thought.

The birth of Logistics can be traced back to ancient war times of Greek and Roman empires, when military officers titled as 'Logistikas' were assigned the duties of providing services related to supply and distribution of resources. This was done to enable the soldiers to move from their base position to a new forward position efficiently, which could be a crucial factor in determining the outcome of wars. This also involved inflicting damage to the supply locations of the enemy and safeguarding one's own supply locations. Thus, this led to the development of a system which can be related to the current day system of logistics management.

During the Second World War (1939-1945), logistics evolved greatly. The army logistics of United States and counterparts proved to be more than the German army could handle. The supply locations of German armed forces were inflicted with serious damages and Germany was not able to wreak the same havoc on its enemy. The United States military ensured that the services and supplies were provided at the right time and in the right place. Operational research and linear programming were used in the aim to provide these services when and wherever required, in the most optimal and economical manner. The best available options to do the task were developed. This also gave birth to several military logistics techniques which are still in use, albeit in a more advanced form.

The evolution in the 1950s and 1960s, emphasized the priority goal of most manufacturers in mass production to minimize unit production cost as the primary operations strategy, with little product or process flexibility, slow new product development and exclusive reliance on in-house technology and capacity (introversive perfectionism). It had considered sharing technology and expertise with customers or suppliers too risky and unacceptable with consequent little emphasis placed on cooperative and strategic buyer-supplier partnership. 'Bottleneck' operations were cushioned with high inventories to maintain a balanced line flow, resulting in huge investment in work in process (WIP). The purchasing function was generally regarded as being a service to production, and managers paid limited attention to issues concerned with purchasing (Farmer, 1997; Tan, 2001).

In the 1970s, chiefly, Manufacturing Resource Planning (MRP) was introduced and managers realized the impact of huge WIP on manufacturing cost, quality, new product development and delivery lead-time. Manufacturers resorted to new materials management concepts to improve performance within the 'four walls' of the company (Aschner, 1997).

In the 1980s, the intense global competition forced world-class organizations to offer low cost, high quality and reliable products with greater design flexibility. Manufacturers utilized just-in-time (JIT), Economic Resources Planning (ERP) and other management initiatives, to improve manufacturing efficiency and cycle time (Farmer, 1997). In the fast-paced JIT manufacturing environment with little inventory to cushion production or scheduling problems, manufacturers began to realize the potential benefit and importance of strategic and cooperative buyer-supplier relationships. The concept of SCM emerged as manufacturers experimented with strategic partnerships with their immediate suppliers. In addition to the procurement professionals, experts in transportation and logistics carried the concept of materials management a step

further, to incorporate the physical distribution and transportation functions, resulting in the integrated logistics concept, also known as SCM.

The SCM evolution continued into the 1990s as organizations further extended best practice in managing corporate resources to include strategic suppliers and the logistics function in the value chain. Supplier efficiency was broadened to include more sophisticated reconciliation of cost and quality considerations. Instead of duplicating non-value-adding activities, such as receiving inspection, manufacturers trusted suppliers' quality control by purchasing only from a handful of qualified or certified suppliers (Inman and Hubler, 1992). More recently, many manufacturers and retailers have embraced the concept of supply chain management to improve efficiency across the value chain. Manufacturers now commonly exploit supplier strengths and technology in support of new product development (Ragatz et al., 1997; Morgan and Monczka, 1995), and retailers seamlessly integrate their physical distribution function with transportation partners to achieve direct store delivery or cross docking without the need for receiving inspection (St. Onge, 1996). A key facilitating mechanism in the evolution of supply chain management is a customer-focus corporate vision, which drives change throughout a firm's internal and external linkages (Christopher, 1992).

An open issue remains to trace out and suggest useful opportunities for researchers as we carry SCM literature into the next decade. We have to follow the often hope that this study will be helpful to SCM academics to clarify the boundaries defining our field, but also assist researchers from referent disciplines and those new to the field of SCM research to attain better understanding as to where the field currently stands and the type of research that is needed to advance the SCM literature in future decades.

LITERATURE REVIEW

Within a new landscape of transactions and technology environment, manufacturers and wholesale and retail service providers have increasingly sought to collaborate with their suppliers and upgrade their purchasing and supply management functions from a traditional clerical role to an integral part of a new phenomenon known as SCM, to enhance sustainable competitive advantage. (e. g. Christopher, 1990, 1992; Gattorna, 1990, Gattorna and Walters, 1996; Laios and Moschuris, 1999; Lynch et al., 2000; Tan, 2001; Ho et al., 2002; Giannakis and Croom, 2004; Chen and Paulraj, 2004; Burges et al., 2006; Cheng et al., 2006; Jonhson et al., 2007).

The term SCM is the most widely used to describe this philosophy. Unfortunately, there is no explicit description of SCM or its activities referring to relevant concepts such systems, strategies, etc. in the literature (New, 1997). Also, there are in part tautological definitions of the SCM (Harland, 1996).

More specifically, there seems not to exist definitional consensus (New, 1997; Cox et al., 2001; Kauffman, 2002; Quayle, 2003; Mentzer et al., 2001). Scott and Westbrook (1991) and New and Payne (1995) describe SCM as the chain linking each element of the manufacturing and supply process from raw materials through to the end user, encompassing several organizational boundaries. According to this broad definition, SCM encompasses the entire value chain and addresses materials and supply management from the extraction of raw materials to its end of useful life. There seems to be more recently a converging adoption of the term of Mentzer et al.,

(2001): SCM is defined as the systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole. This definition has to be taken in a 'liberal' manner within the scope of the research at hand (Burgess et al., 2006).

While in principle this definition of SCM addresses the supply process throughout the value chain, a practical approach has proposed to consider only strategically important suppliers in the value chain (Tan, 2001). Because, technically, the value chain is too complex to achieve a full integration of all business entities within it.

A third definition of SCM emerges from the transportation and logistics literature of the wholesaling and retailing industry, emphasizing the importance of physical distribution and integrated logistics. There is no doubt that logistics is an important function of business and is evolving into strategic SCM (New and Payne, 1995). Physical transformation of the products is not a critical component of this definition of SCM, as was originally used (Lamming, 1996). The primary focus is to the efficient physical distribution of final products from the manufacturers to the end users in an attempt to replace inventories with information (Christopher, 1996; Christopher et al., 1998).

The military inheritance had certain distortion implications in the use of the concept of strategy, strategic, etc. (Gattorna, 1990b; Bender, 1990; Chopra and Meindl, 2001). Actually, the term strategy has emerged in the management literature during the sixties and since then followed rapid extension in use (Ansoff, 1965; Bowman, 1992). It has been traditionally emphasized the rationality of analysis, as a step-by-step process. It has been noticed that this view is not without problems. More particularly, it does not account for the social, cultural, political and cognitive aspects of the process of strategy development (Bailey and Johnson, 1992). Consequently, doubts have been raised especially in cases of unexpected shifts in the environment, unforeseen problems in implementation or limitations in the process, that can operate to restrict the efficiency of strategy formulation and its realization (1958, 1969, 1988; Watson, 1992). The result of this may mean that an organization's intended strategy is not realized to actual strategy (Mintzberg, 1994; Morash et al., 1996). So, strategy, if not sufficiently founded, may be exposed to a vision and further on possibly to virtual reality.

There is also, certain ambiguity in the use of the concept of system and its derivatives, such as systemic thinking, etc. The borrowing of the term from the mathematics and the physical science is hardly compatible with the contradictory abuse of it, by identifying actually subsystems and processes within the supply chain (e.g. information system, warehousing system, etc.) (Malindretos, 2006). Reconsideration of the system concept goes back to 1934 (Bertalanffy, 1962; Boulding, 1956). The change in the system in network terms of the supply chain is incorporated in the broad framework of change to face a variety of challenges, against the piecemeal approaches traditionally used to initiate and manage change (Forrester, 1961; Houlihan, 1988).

In recent years, along with the advance in the field of logistics into a broader SCM orientation, it has proceeded in maturing and more strategic character (Cooper, et al., 1997; Kent and Flint 1997; Chopra and Meindl, 2001). In lack of a solid theoretical grounding, SCM researchers have often incorporated theories and methodologies from neighbouring disciplines (Stock, 1990, 1997).

In parallel, strategy researchers have increasingly focused on supply chain topics. Accordingly, researchers in both SCM and SCS have extended the linkages between their respective fields. In effect, 'the practices of logistics and SCM along with their associated benefits (better customer service, lower cost, higher quality, and improved competitive advantage) are linked closely with the strategic management literature' (Wisner, 2003). In the list of borrowed closely relevant concepts are mentioned the integration, the concepts of processes, the networks and channels, the logistics and strategic principles and the concepts and rules of the competitive and efficient markets (Lambert & Stock, 1993; Kline, 1998; Ballou, 1999; Chopra & Meindl, 2001, Bowersox et al., 2002; Rodrigues, et al., 2004; Dirk & Taco, 2005, etc.).

There is a number of literature reviews published in the top scholarly journals in the fields of operations management, logistics, purchasing and SCM (Croom et al. 2000; Carter and Ellram 1998; Burges et al., 2006; Cheng et al., 2006). The literature review of academic research in the SCM focuses on the existing trends and gaps in the supply chain literature of published papers selecting a number from the most known academic journals. By use of an investigative approach, as a rule it examines (1) the existing literature, (2) subject categories covered, (3) various levels of the chain, (4) methods employed by researchers in their studies and (5) data analysis techniques utilized (Guinipero, et al., 2008). A conceptual framework of the most highly researched categories in SCM indicates that there is a need for more research that will seek to understand the nature of multiple links in SCM chains and networks.

Most representative research in converging supply chain and strategy topics, is the following:

- Porter's (1980, 1985) so called five-forces model (with five forces which influence industry profitability being: competitive rivalry; barriers to entry; threat of substitutes; the power of buyers and the power of the suppliers), had proposed choice among three 'generic strategies' (classified in cost-leadership, differentiation and focus), in pursuing to achieve competitive advantage. This model has been employed by many to mention Lynch et al., (2000) and Wisner (2003), among others.
- Growing attention gained the analysis and evaluation of SCS by use of various tools, such as a multi-agent simulation model (Tian and Tianfield, 2006). The SCS framework has also been approached in a set of structural elements of the supply chain [customer-product-process-resource (CPPR)], that put together in different degrees of alignment (Martnez and Shunk, 2006).
- The increasingly captivating approach of Global Strategic Management (GSM), in the mainstreams of Strategic Management. Connecting Strategic Management to globalization was seen in terms of three broad themes: as a stage in the development of a corporation, as a causal link between strategy and structure and the so called 'Process School', that the transnational enterprises have to achieve constant balancing between 'economic imperative' and the 'political imperative' (Lynch et al., 2000; Rodrigues et al., 2004; Miller, 2004).
- The Transaction cost theory (Williamson 1975, 1985) has been applied by Ellram (1991) and others.

- The resource-based view (Wernerfelt, 1984; Barney, 1991) has been utilized by Olavarrieta and Ellinger (1997) and Zsidisin et al. (2003).
- The Dynamic capability theory (Teece et al., 1997) has provided theoretical insights to Sinkovics and Roath (2004). However, despite the application of relevant strategy theories to SCM, a large body of strategy research that has empirical findings and supporting research methods (e.g. PEST-DG, SWOT) remain largely unexplored by SCM researchers.

A recent empirical strategic management literature research stream has analysed firms that focus on establishing alliance relationships to form strategic networks (Cheng et al., 2006). Strategic networks are composed of inter-organizational ties that are enduring, have strategic significance for the firms entering them, and include strategic alliances, joint ventures, long-term buyer-supplier partnerships, and a host of similar ties (Gulati et al., 2000). Management researchers have developed an extensive literature on alliances, as categorized by the organizational structure suggested by Gulati (1998).

The SCM researchers can learn more about the field of strategy and incorporate strategy research to a greater degree into their own efforts. The relevant strategy literature provides supply chain researchers guidance on how to internationalize key SCM variables (Cheng et al., 2006).

As the SCM has been a melting pot of various disciplines, it encompasses influences from logistics and transportation, operations management and materials and distribution management, total quality management, purchasing and information technology (IT), strategic thought, etc. (Bechtel and Jayaram, 1997; Stock, 1990, 1997; Benton, 1990; Cooper et al., 1997; Kent & Flint, 1997; Wisner, 2003, Cheng et al., 2006; Burgess et al., 2006; Guinipero et al., 2008;). Ideally, an encompassing philosophy of SCM embraces all functions to produce an overall SCS that ultimately enhances firm performance (Croom et al., 2000). However, the literature is still very fragmented and although several studies purport to discuss supply chain issues, most of the existing research examines one link of the chain, or more importantly focuses on one ingredient in the supply chain performance mix (Lynch et al., 2000; Rodrigues et al., 2004; Burgess et al., 2006; Cheng et al., 2006; Guinipero et al., 2008).

RESEARCH METHODOLOGY

Since logistics is interdisciplinary by definition: it stems from many different scientific traditions (Arlbjørn and Halldorsson, 2002) and is influenced by economic and behavioural approaches and scientific disciplines (Stock, 1997). However, the central approach in logistics research tradition has been that of deduction, which follows a conscious direction from a general knowledge to a specific case. It has favoured positivist reasoning, while qualitative and interpretative research has been rather scarce (Mentzer and Kahn, 1995; Arlbjørn and Halldorsson, 2002; Näslund, 2002). Therefore, the various methods that have been used in logistics research, ranging from mathematical modelling and simulation to survey research, case studies and interview methods, come under the dominant positivist deduction approach.

The prevalence of the deduction research approach and the positivist paradigm implies little research on a new man/technology interface and theory development to date, which is

surprising for a relatively new scientific discipline (Listou, 1998; Kotzab et al., 2005; Kovacs and Spens, 2005). It has been pointed out anyhow that the task of theory development is very important in order to further validate this relatively young scientific discipline (Stock, 1997). The inductive research approach reasons through moving from a specific case or a collection of observations to general conclusions, i.e. from facts to theory. It consists of a theory development process that starts with empirical observations and seeks to establish generalizations and a theoretical frame (Arlbjørn and Halldorsson (2002).

A stream of research has focused attention in promoting the use more particularly of abduction (e. g. Kotzab et al., 2005; Kovács and Spens, 2005). Because, the abductive approach stems from the insight that most great advances in science neither followed the pattern of pure deduction nor of pure induction, in the process from rules to result (Taylor et al., 2002). The abduction starts from results, namely the reality of an existing situation and uses any kind of information and piece of knowledge, including grounded approach and purposive action approach as well as know-how and experience, and acknowledges the critical importance of cooperation, and human resource development. Main differentiation with the deductive and the inductive approach is whether theory precedes theory or follows it.

The abductive approach also differs from deduction and induction in its research process from rule to result. In abductive reasoning, the case presents a plausible but not logically necessary conclusion, provided that its anticipated rule is correct. An empirical event or phenomenon is related to a rule, which gives new insight (or supposition) about the event or phenomenon.

The absence of abduction and abductive approach, and the lack of background of the research in logistics have initiated increasing divergent attempts to knowledge in recent years. A stream of research has focused attention to promote the use of induction and more particularly of abduction (Kotzab et al., 2005; Kovács and Spens, 2005).

Surveys and case studies, with discipline to sampling, representativeness and procedures can assist abductive analysis, provided it uses any piece of information and adopt mixed research methodology (Creswell, 2002; Malindretos et al., 2002; Malindretos, 2006). It is reminded that while both deduction and induction adopt single way causation, it is acknowledged the critical importance of the human resource development, the cooperation, and the coordination, for knowledge creation and innovation within the today complex context (Drucker, 1988; Castells, 2000; Spens and Kovacs, 2006).

Quantitative methods are generally associated with numerical (quantifiable) data, but collecting quantitative data can just as well be interpreted qualitatively (Harkland et al., 2003). Sometimes, hypotheses based solely on some type of a mathematical model, have been proved pure tautologies and existential statements, and the great mathematician Pólya (1957) included creativity and 'heuristic' the centerpiece of his discussion of methodology.

The integration process requires choice of mixed research methodology, network formation at value supply chain level by interdisciplinary action methodology research framework, with focus on mobilization, partnership, cooperation and coordination of all available resources, capabilities, and know-how infrastructure for building-up of an effective value chain supply network addressing for search of new methods (Stock, 1997).

FURTHER ANALYSIS

The literature review has shown the need for further analysis in the strategic planning and its implementation to achieve performing results in competitive advantage and sustainability. It is recalled that the literature has been looked from three perspectives: the supply chain integration, strategy and planning, and implementation issues, which concern critical factors for performing application, as well as issues specific to inter and intra-organizational aspects of supply chain initiatives. Sufficient understanding serves to highlight the inter-dependence between integration requirements (technologies, logistics, and partnerships), the strategic view of supply chain systems, and performing implementation. The strategic nature of adopting a supply chain framework provides significant potential benefits, and requires trading partners to think and act strategically. This is easier said than done within a stand-alone organization, let across a diverse and dispersed group of trading partners.

The research on the strategic management and the SCS has attributed attention to the framework of interrelationships in planning network structures, inter-organization and coordination requirements. Global supply chain design extends for selecting facilities at international locations with involvement of special globalization factors.

Particular attention is centered to the process of improving knowledge, to meet a twin research challenge: the advance from the supply to value chain and strategic vision to strategic fit. This has to be conceived as change in philosophy, attitudes, work and life style and practices. Otherwise stated, the advance of knowledge starts from self-knowledge, which may go back to human existence, the human nature, etc., addressing itself to interdisciplinary research, with extension to biology, psychology, sociology, etc.

Although the literature review has shown that research has been largely practitioner-led, with theory following (Voss et al., 2002), that is possibly not irrelevant to the not rare strategic, tactical and / or operational faults, and presence of significant rates of firm failures. It is recalled that theory development has been generally accepted as an essential requirement for the proper development of any field (Popper, 1961; Kuhn, 1970; Wacker, 1998).

However, it is broadly agreed that realignment in the strategy-structure relationship and further connection among strategy, structural planning and operational processes may lead to maximum improvement of the financial performance (Galbraith and Nathanson, 1978; Lynch et al., 2000; Shapiro, 2001; Rodrigues et al., 2004; Cheng, 2006). No doubt, there exists a conceptual framework concerning the relationship of corporation strategies, structural and organizational planning and operational processes (Chow et al., 1995) and it depends on the connection and alignment between structural relationships and strategic choices (Dalton et al., 1980; Galunic and Eisenhardt, 1994; Miller, 2004). It is also mentionable the more recent occupation with the existence of 'relational flows' of planning and measurable integration of the structural, technological and operational flows of materials, service suppliers and customers (Bowersox et al., 2002). However, although there has been some application of strategic theories in the SCM, there are still open significant possibilities for further research (Cheng et al., 2006).

A major research advance is to be found in restoration of the planning process and of the strategy issue, by overcoming misconceptions and validating the marriage of the strategic thinking with practice, which faces the most critical problem of performing implementation. More specifically, strategic thinking is essential to planning and comprehensive unified strategy can be critical to performing goals implementation (not segmented strategies justified).

Main potential capabilities to overcome constrains and mobilization of all available infrastructure, know-how and experience is to be found in realization of a new man/technology pact and the critical role of information and equal competitive chances. More specifically, sole focus to new technologies and automation are not anymore taken as a recipe, but in connection with high education quality and creation of equal chances, to reap the fruits of over-specialization and attain substantiate sustainable competitive advantage. Because product/service quality creates value through user satisfaction and produce synergy effects by effective collective action, innovative work climate, coordination and control, throughout the supply chain. Thus, to success of competitive advantage passes anymore from strategic thinking and the social mission of the company, to follow Mintzberg and Ghoshal et al. consignments.

Actually, many failures were due to unbalanced and ill planned reliance on technology, on conventional thinking and partial character practices, by undervaluing the current complex interdependencies and the critical role of the human factor in new ideas, innovation and effectiveness (Malindretos, 2007). Past methodologies and practices can not apprehend a major historical transformation that has taken place from the mass production age of the first post-war period (Braudel, 1977). Holistic approach and strategic thinking can help to understand that the past company environment is irreversibly over, as the boom of marketing, advertisement, fashion and the like have reached their limits: as mass production was directed to absorption largely within the developed world. Since, consumer society led to a demonstration like social stratification, it is hardly accommodating anymore with progress and competitiveness, it is harmful to physical and social environment, and is prone to instability and crisis (crime, overdebt, threats to social cohesion, etc.). Proactive intervention to a new world financial and economic crisis can be seen in new strategic thinking for micro and macro-logistics application to safeguard effective and renewable flow of resources.

Main impediment looks to be what can be called the 'meditative society' (media control for use of misinformation for company profitability, intermediation in public works, etc.). Because, it drives to distortions and rigidities which are both destabilizing and harm progress and sustainability, as strengthening short-sightedness and asymmetric information (adverse selection and moral hazard), and preventing 'equal chances', necessary for achieving sustainable competitive advantage, competitiveness and sustainability, within the new firm's environment. In this connection, it is worth noting that the research on the factors of the SCM and policy recommendations by OECD and other international economic organizations, referring to the factors of competitiveness do not attribute major importance to the issue of 'equal chances' and 'terms of competition'. However, the EU Framework Program for Competitiveness and Innovation for the period 2007-2013 has attributed target priority to the SMEs, indicating that it is related with the lag of meeting the Lisbon goals.

MAIN SURVEY'S RESULTS

A survey has been performed concerning the use of SCS by big size companies in the Attica area of Greece : twenty Greek and multinational companies participated, including ten super market retailers. Although the survey research, has not been completed yet (August 2009), a number of interesting remarks have emerged which are reasonably expected not to divert from the final study results (table 1). It has to be noticed firstly the high validity of this study in view of that the reviewed have shown confidence as the study was carried out for research purposes and the confirmation that the information and data provided would be kept in secret from other competitors.

A significant result is that there is inadequate understanding of the logistics processes, in identifying them with the integrated approach of the SCS. In particular, the great majority of the reviewed had assigned outsourcing (3PL) in transport and warehousing based on the criterion of capital and operational cost- savings and consider that the strategic potential is closely associated with the technological problem.

One more result that came out concerned the converging reasoning for the companies that have assigned certain outsourcing as well as by the logistics service providers. This implies that outsourcing has not been incorporated in a restructuring and reorganization design (re-engineering plan) and has not been extended beyond the boundaries of the company level.

Quite the contrary is the case of big size retail companies like super markets, domestic or multinational, which have introduced in great majority integrated supply chain systems, since they recognize supply chain performance as the key to sustainability rather than focusing upon current profitability. This is in line with the increasing competition on the level of supply chain rather than on individual enterprises level.

The survey has revealed that most super market retailers have already organized impressive distribution centers, considering them as critical value adding nodes, creating significant competitive advantages in the supply chain.

Apart from sales and procurement, it is more than obvious that, retailers recognize warehousing and distribution processes as core processes, aiming at incorporating them in their holistic strategic supply chain approach; despite the fact that considerably big 3PL providers have already developed their infrastructure in the area. Moreover, according to the survey, the sustainability issue is directly connected with provision of high quality customer service and customers' loyalty, rather than with cutting operational costs. Their goal is therefore to organize and control the flow of goods not only from the point of consumption but also from the point of supply. In effect, their role is beyond retailing, imposing their contract terms to wholesalers and manufacturers and farmers, in terms of procurement and distribution.

Thus, they have increased their power concerning the terms of trade in the procurement from manufacturers and more so with the small size farmers, in view of distorted cooperative movement, diverted in income subsidization of crops, within the possibilities of the CAP of the EU. Behind such a situation lies the record mark-up between major crop producer prices and final prices charged to the urban consumers (up to three to five times).

<i>Basic response elements</i>	<i>Outcome / Conclusion</i>
<i>Inadequate understanding of logistics processes</i>	<i>Lack of supply chain integrated approach</i>
<i>Strong focus on cost savings based on technology by 3PLs and a limited number of companies</i>	<i>Strengthening of short-sightedness benefits</i>
<i>Converging reasoning for outsourcing by companies and 3PL providers</i>	<i>Lack of planning and supply chain strategy</i>
<i>Super market retailers : connection of supply chain performance contribution with sustainability</i>	<i>Effective control of supply</i>
<i>Connection of sustainability with dedication to customer service and loyalty by super market retailers</i>	<i>Unfavoring 3PLs in their SCS</i>

Table 1 – Main survey's results

CONCLUDING REMARKS

The firms are today operating a 'chaos-tolerant' supply chain in a globalized markets environment of increasing uncertainty, and have to face the challenge of hard competition to manage complexity and increase profitability, competitiveness, and growth. The SCS can meet the challenge of interfirm collaboration at supply chain level and compromise the different perspectives of manufacturers, retailers, transportation and logistics service providers. It has critical importance, in view of that a 'strategic mistake' at start may damage irrevocably the sustainability goal of the firm.

In view of a situation of lacking conceptual, theoretical and methodological agreement, special attention has been attributed to the issue of clearing-up and choosing the appropriate research methodology (right concepts, constructive research action for all parties' participation, knowledge management). Strategic thinking is essential to holistic planning to assure comprehensive SCM solutions and cope with capabilities and constraints by specific programs, towards formation of an appropriate value creating supply chain network. SCS can contribute in meeting the targets of effective utilization of resources in combination, by cooperation and best practices for low total cost and value creation to the customers, based on foundation of a dynamic feed-back process, upon appropriate coordination and control.

The preliminary results of a study carried out in Attica major area, Greece have shown inadequate information and lack of understanding of the logistics processes, particularly, in relation with the integrated approach of the SCS. Holistic approach and strategic thinking can

therefore contribute in overcoming past practices, distortions and rigidities which hamper competitive and efficient markets through 'asymmetric information' (adverse selection and moral hazard), within conditions of 'media society'.

However, 'equal chances' lengthen the time-horizon, facilitate reliability of expected cost/benefits estimates and support achieving sustainable competitive advantage, competitiveness and sustainability. In this connection, the EU Framework Program for Competitiveness and Innovation for the period 2007-2013 has attributed target priority to the SMEs, indicating that it is closely related with the lag of meeting the Lisbon goals. Moreover, state authorities may strengthen infrastructure and incentives by use also strategic thinking and adoption of certified official professional lists, to maximize value creation, competitiveness and sustainability.

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ENTREPRENEURSHIP LOCAL INITIATIVES AND THE ADJUSTMENT OF POLICIES AND REGULATIONS. A CASE STUDY

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Purpose – The main purpose of the paper is to provide an example of a bottom-up approach to entrepreneurial policy and its mismatch with the top-down approach SMEs policy.

Design/methodology/approach – The paper analyses a case study of an entrepreneurial support organisation that addresses local development in rural areas.

Findings – The paper highlights the important role of innovation in rural areas and the need to close the gap between entrepreneurial policy and SMEs policy.

Research limitations/implications – The main limitation stems from the fact that it is the outcome of a single case study. One practical implication is that the incubation of business ideas poses a challenge when there is a mismatch between entrepreneurial policy and SMEs policy.

Keywords: entrepreneurship, rural areas, entrepreneurial policy, local initiatives

Paper type: Case study

INTRODUCTION

Entrepreneurship is strongly affected by economic, social and institutional conditions both at local and regional level. Many programmes to support entrepreneurs are better implemented by local authorities or organisations rather than by national entities because actions can best be tailored to the specific needs of businesses and the involvement of a wider range of actors can bring a richer mix of competencies to the project.

Entrepreneurship support organisations (ESO) linked to social economy play a key role in several phases of the entrepreneurial support – namely in the pre-start-up and start-up phases – helping potential entrepreneurs through the process of exploring ideas, gaining knowledge and skills, preparing business plans and mobilising resources. In the start-up phase, ESOs can also provide counselling and information, start-up financing, market plan assistance and training opportunities. In sum, ESOs are important resources for the implementation and development of entrepreneurship support methodologies and practices.

Local authorities and entities can face some problems and difficulties when designing and implementing new projects and methodologies, namely in the field of entrepreneurship and business creation. They might need, like entrepreneurs, to overcome some barriers related with (a) regulatory issues; (b) cultural and social bonds; and (c) financial and economic burdens.

This paper defines the case study of the implementation of a methodology for incubating business ideas and supporting entrepreneurs in Portugal, which will be known as CRER methodology, developed by an ESO.

The main purpose of the paper is to present a case study of the CRER project that addresses a bottom-up approach of entrepreneurial local initiatives and the need to adjust entrepreneurial policy to take full advantage of this innovative approach.

After this introduction, the next section presents the main concepts of local development and its relationship with entrepreneurship. The third section addresses the specificities of entrepreneurship policies. The fourth section presents the CRER project/methodology and explores the case study. Finally, the fifth section presents the conclusion and main challenges for the future.

LOCAL DEVELOPMENT AND ENTREPRENEURSHIP

Entrepreneurship has been studied for quite a long time (Cantillon, 1755; Schumpeter, 1912) though its concept is still an open issue (Drucker, 1985; Zacharies, Bygrave and Shepherd, 2000) because it can be approached as an action and as a result.

Entrepreneurship and the creation of enterprises play a structural and dynamic role in terms of job creation, innovation and economic growth, poverty alleviation, creation of social opportunities and empowerment of the less favoured and marginalised social groups (OECD, 2004).

The economic, social and institutional conditions both at local and regional level strongly affect Entrepreneurship. OECD (1998) considers that many important programmes to support entrepreneurship are best designed and implemented by local authorities or organisations. Specific factors at local level can encourage entrepreneurship through local measures and programmes designed and implemented by local authorities and institutions such as: business incubators, advisory and information services, business networks, loan guarantee consortia, information brokerages for informal venture capitalists, training schemes and entrepreneurship awareness programmes. As actions can best be tailored to the specific needs of businesses and the involvement of a wider range of actors can bring a richer mix of competences to the project local initiatives have particular advantages in encouraging entrepreneurship through local measures.

Local authorities and institutions have an important role to play in the design and implementation of entrepreneurship policies and in the mobilisation and allocation of local programmes to target groups (CEC, 2003). For example, managerial training programmes can be best delivered through local bodies or decentralised offices of national programmes. These local institutions can adapt schemes to an area's specific needs, which can be difficult for central authorities. They can also operate near the trainees, allowing them to undertake training without spending excessive time away from the workplace.

The entrepreneurial activity is not alike in all countries, regions and cities: it is conditioned by various factors, settled in the behaviour, motivations and knowledge of the individual, but it is dependent on opportunities, on available resources and on socio-economic conditions (Stathopoulou, Psaltopoulos, Skuras, 2004). Clearly, entrepreneurial activities vary widely between nations, industrial areas, cities and less favoured areas due to the specificities of the different economic environment.

The existence of a favourable economic environment is not going, by itself, to provide an entrepreneurial activity: countries/regions must create conditions and facilities for the development of entrepreneurship and entrepreneurs (Busch and Juska, 1997). According to Velasco (2003) for entrepreneurship to flourish a number of conditions must be in place, such as financial resources, strong educational and training facilities, efficient infrastructures, uniform commercial law and limited regulations, equal opportunities, low taxes and tax incentives free trade, support from large corporations, research facilities, industrial zones, public-private partnership and encouragement and support from society.

The ideal environment for entrepreneurship is where enterprises can take advantage of the agglomeration and proximity to use sources of information, qualified labour, technology and capital. There is an intimate relationship between entrepreneurship and economic and social development (Malecki, 1997): innovations developed inside local networks support businesses and present new opportunities for entrepreneurs to launch new firms. Rural areas are far from this ideal environment as networks are poorly developed, innovative activities are not part of the local culture and enterprises struggle to become more competitive (Keeble and Tyler, 1995).

Entrepreneurship is shaped by legal, institutional and social factors, environmental opportunities, potential entrepreneurs, organisational contexts, unique business concepts and resources (Morris, 1998; Audretsch and Thurik, 2004). Therefore, networks, knowledge, innovation and transfer of experiences can be fundamental for the development of an entrepreneurial environment.

Recently, practitioners and analysts working on entrepreneurship have been placing considerable importance to the development of social capital and a culture of supportive of entrepreneurial venture (OECD, 1998). Social capital is understood as *“networks, trust, working through partnership, spatial communities, common culture and norms, transfer of experience and mobilisation. Horizontal cooperation is shown to be more effective and trust more evident between same level institutions or groups of people at horizontal level”* (Parissaki and Humphreys, 2005, pp.7).

The interaction between individuals within formal and informal networks builds trust, communication, participation and a cultural dimension and the involvement in social networks affects positively the economic development: the level of entrepreneurship and consequent economic growth, employment and social inclusion (Mandl et al, 2007). Thus, social capital in certain rural areas can provide and contribute for the development of entrepreneurship, employment, social inclusion and economic growth. The partnership and the transfer of experiences between entities from different regions and with distinct competencies and practices are crucial for the regional development and innovation.

Social entrepreneurship has also emerged in public and private non-for-profit sectors. It is viewed as a new way of dealing with the complex social needs as it is linked to a complex framework of political, social and economic changes that take place at local, regional, national and global levels (Martins, 2007b).

The objective of social economy enterprises is to give support and services to their members or society and it is more and more being recognised as fundamental to the society and economy: they are significant economic actors and play a key role, involving their members and citizens in

society. Social enterprises help to find answers to the changes that happen in society and they are important sources of entrepreneurship and job creation.

The European Commission divides social economy enterprises into: cooperatives, mutual societies, associations or voluntary organisations and foundations. They contribute for a more efficient competition in the market, they offer a great potential for job creation and new ways of entrepreneurship and employment. They are based on the member's activities, and they follow the new needs and favour the citizen's participation.

The OECD (1998) also recognise that non-for-profit organisations have high number of services in health, education, training, culture, social and science research, community networks support, among others, and have social objectives instead of profit goals.

Although social capital and social economy entities are important for the development of innovative and entrepreneurial projects in certain regions, and contribute to promote employment, social cohesion and enterprise creation, there are some difficulties and barriers to foster entrepreneurship and business creation. These barriers stretch throughout the whole society, but they are not alike for all the individuals. Although some obstacles are common to all people, some groups find specific obstacles, namely, women, young people, people with disabilities, ethnic minorities, jobless and people living in rural or distressed areas.

There may be a variety of barriers to entrepreneurship, depending on the industry sector, region and type of enterprise (Martins et al, 2004). The Green Paper of Entrepreneurship (Commission of European Communities, 2003) identifies a number of common barriers that limit the creation of new firms across the EU including:

- Regulatory barriers, such as administrative barriers to entry;
- Cultural and social barriers, such as the 'fear of failure' and a lack of entrepreneurial knowledge and skills;
- Financial and economic barriers, such as, insufficient access to risk capital, seed /early stage capital and long-term financing.

Besides the barriers linked to the individual, new and innovative projects related with entrepreneurship and business creation can face some implementation difficulties because barriers can occur and inhibit the promotion of entrepreneurship and the improvement and implementation of methodologies, instruments and processes.

ENTREPRENEURSHIP POLICIES

Although entrepreneurship policy is emerging as an important area of economic policy development, and it is a relatively new phenomenon, countries usually focus their policies on SMEs rather than on entrepreneurship. Many countries are trying to create a more entrepreneurial society but their work is often impeded by (a) the lack of definition of entrepreneurship as a concept; (b) the lack of clarity between SME and Entrepreneurship policy; and (c) the lack of knowledge about how to respond to the emergence of an entrepreneurial society (Stevenson and Lundstrom, 2001).

Audretsch (2003) defends it is necessary to make a distinction between the traditional small business policies and entrepreneurship policies. SMEs policy refers to policies implemented by a ministry or government agency charged with a mandate to promote SMEs and it is normally targeted towards the existing stock of enterprises and virtually all of the instruments are designed to promote the viability of the SMEs. While SMEs policy has a focus on the existing stock of enterprises, entrepreneurship policy includes potential entrepreneurs as well as the existing enterprises. Entrepreneurship policy has a greater sensitivity to framework or environmental conditions that influence the entrepreneur's process decision making. There is also a difference related with the entities responsible for the implementation and development of entrepreneurship and SMEs policies: virtually every country has a ministry in charge of the SME sector, with several instruments and agencies to promote SMEs. In what concerns entrepreneurship, there is no agency or ministry responsible for its promotion and entrepreneurship policy can usually be found across a wide spectrum of ministries and agencies.

Stevenson and Lundstrom (2001: pp.3) define entrepreneurship policy as: *"...measures taken to stimulate entrepreneurship, aimed at pre-start, start-up and early post start-up phases of the entrepreneurial process, designed and delivered to address the areas of motivation, opportunity and skills, with the primary objective of encouraging more people to consider entrepreneurship, to move into the nascent stage and proceed into start up and early phases of a business."*

The OECD (2005) approaches that entrepreneurship policy differently from SME policy and claims that without sound entrepreneurship policies there cannot be strong SMEs. On the other hand, SMEs policy cannot substitute entrepreneurship policy. The two policies are complementary and should be carried out together. Therefore, entrepreneurship policy and SMEs policies need to be viewed as a continuum, encompassing the pre-start-up, start-up, growth and expansion stages of the enterprise. Clearly this approach considers entrepreneurial policy targeted to individuals and institutions and SME policy targeted to firms.

Lundstrom and Stevenson (2005) claim that in order to favourably influence the economic environment, there is a need to clarify the entrepreneurial process and to define the scope of both the entrepreneurship policy and SMEs policy in each phase of this process.

Lundstrom and Stevenson (2005) consider that entrepreneurship process has five phases: 1) awareness; 2) pre-start (nascent); 3) start-up; 4) early post start-up and 5) maintenance and expansion.

The process begins with becoming aware of entrepreneurship as an option and continues through the early stages of survival and growth of a firm: entrepreneurship policy will play a predominant role in the nascent phase and SME policy when the business has survived the post start-up period (Lundstrom and Stevenson, 2005):

- In the awareness phase, the policy objective is to raise the level of interest in entrepreneurship as an option and also provide opportunities for people to recognize their potential qualities and behaviours. SME policy does not play a significant role in this phase.

- In the nascent phase, policy is concerned with developing the individual's intentions and actions towards starting a business, supporting nascent entrepreneurs and promoting the pursuit of certain opportunities. SME policy plays a marginal role.
- In the start-up phase, individuals start their business. It is the phase where measures to reduce regulatory and procedural barriers to entry and measures to provide counselling and information, start-up financing, market plan assistance and training opportunities are taken. These measures are linked with entrepreneurship policy but also with SME policy.
- In the early post start-up phase, policy interest will shift to (a) early success and failure; (b) the potential of growth companies; (c) seed financing possibilities; (d) market development; (e) administrative and regulatory burdens; (f) networking; (g) counselling; and (h) technology issues. This is a phase where many services providers target their support and where policymakers implement many measures. This phase also falls in the area of SME policy.
- In the maintenance and expansion phase, policy deals with sustainability, productivity and growth issues. SME policy plays a large role while entrepreneurship policy decreases.

Usually, governments differ in their policy goals and priorities, but the main policies fall into six general areas (Lundstrom and Stevenson, 2005): 1) entrepreneurship promotion; 2) entrepreneurship education; 3) the environment for start-ups; 4) start-up and seed capital financing; 5) business support measures for start-ups; and 6) target group strategies.

ESOs linked to social economy, like business centres, business incubators and local development associations, play a key role in the phase of pre-start-up phase, working to help people through the process of exploring ideas, gaining knowledge and skills, preparing business plans and mobilising resources.

CASE STUDY OF CRER PROJECT

The project region and objectives

The CRER Project was promoted by a non-profit rural development association – ADRIMAG – and was funded by the EQUAL initiative, which is testing since 2001 new ways of tackling discrimination and inequality experienced by those in work and looking for jobs.

ADRIMAG's area has seven municipalities (Arouca, Castelo de Paiva, Castro Daire, Cinfães, São Pedro do Sul, Sever do Vouga and Vale de Cambra) and is located in the Centre/North of Portugal. It is a mountainous and agricultural area with 1688 km², with beautiful landscapes and high environmental quality, used often for adventure and extreme sports. The area has a rich historic and cultural patrimony, regional products and typical gastronomy with strong potential for tourism development (Moreira, 2006).

ADRIMAG's territory is composed of municipalities with rural characteristics. It is a debilitated and disfavoured economic area, integrated in the "less-favoured Portugal", with a per capita GDP below 75% of the national rate (Ministério da Economia, 2004).

The region has no integrated transportation system, which makes it difficult for both tourists and residents to cut across the region as the main means of transportation is the personal car.

ADRIMAG's main social characteristics (negative population growth rate, low level of education strong ageing index, high level of unemployment) constitute an important barrier that needs to be surmounted in order to promote innovation, entrepreneurship and business creation in the region (ADRIMAG, 2004).

The lack of alternative ways to finance and support the creation and development of new enterprises hinders the diffusion of innovative and entrepreneurial initiatives: there is a lack of training and personalised support to give and promote competencies in the field of business creation. As a consequence of this *portrait* there is a strong need to foster entrepreneurship and innovation.

The economic backbone of ADRIMAG's region is composed of micro, small and medium-sized firms (Moreira, 2006). While entrepreneurship is discussed at national policy level, few rural areas have been able to address entrepreneurs at the centre of the strategic development of rural *milieus*.

ADRIMAG's region has a very poor set of ESOs operating throughout the community. For example, business and innovation centres, technology development centres and incubating centres are quite scarce or non-existing hindering the entrepreneurial process. The available centres supporting entrepreneurial activities are understaffed and under budgeted and lack a dynamic, entrepreneurial flavour. People living in this rural area, such as young people, women and jobless need the support of a structure to foster entrepreneurship and help them with the business creation.

In questionnaires developed among prospective entrepreneurs living in ADRIMAG's area, the following obstacles were identified (ADRIMAG, 2004): poor access to capital; lack of industrial space; poor business logistics; lack of institutional support; heavy administrative and bureaucratic burdens and lack of information about support and programmes for business creation.

Taking into account the main social and economic characteristics of ADRIMAG's area, the objective of CRER project was to create an ESO to test and experiment business ideas (an idea incubation centre) in order to help potential rural entrepreneurs engaging in entrepreneurial activities before the formal creation of the business firms, which helps promoters both to diminish the business risk as well as to learn about the "being an entrepreneur".

CRER methodology

ADRIMAG developed a partnership with other local and regional institutions and decided to promote a project named CRER in order to develop the entrepreneurial capabilities at local and regional level. The main objectives of the CRER partnership were the following ones:

- The creation, in rural areas, of a structure to test business ideas, through the adaptation and incorporation of methodologies and instruments developed in France;

- The organisation and definition of the methodology that will be implemented in the structure;
- The support, advice and training to entrepreneurs based in a mentoring methodology developed by the partnership of the project.

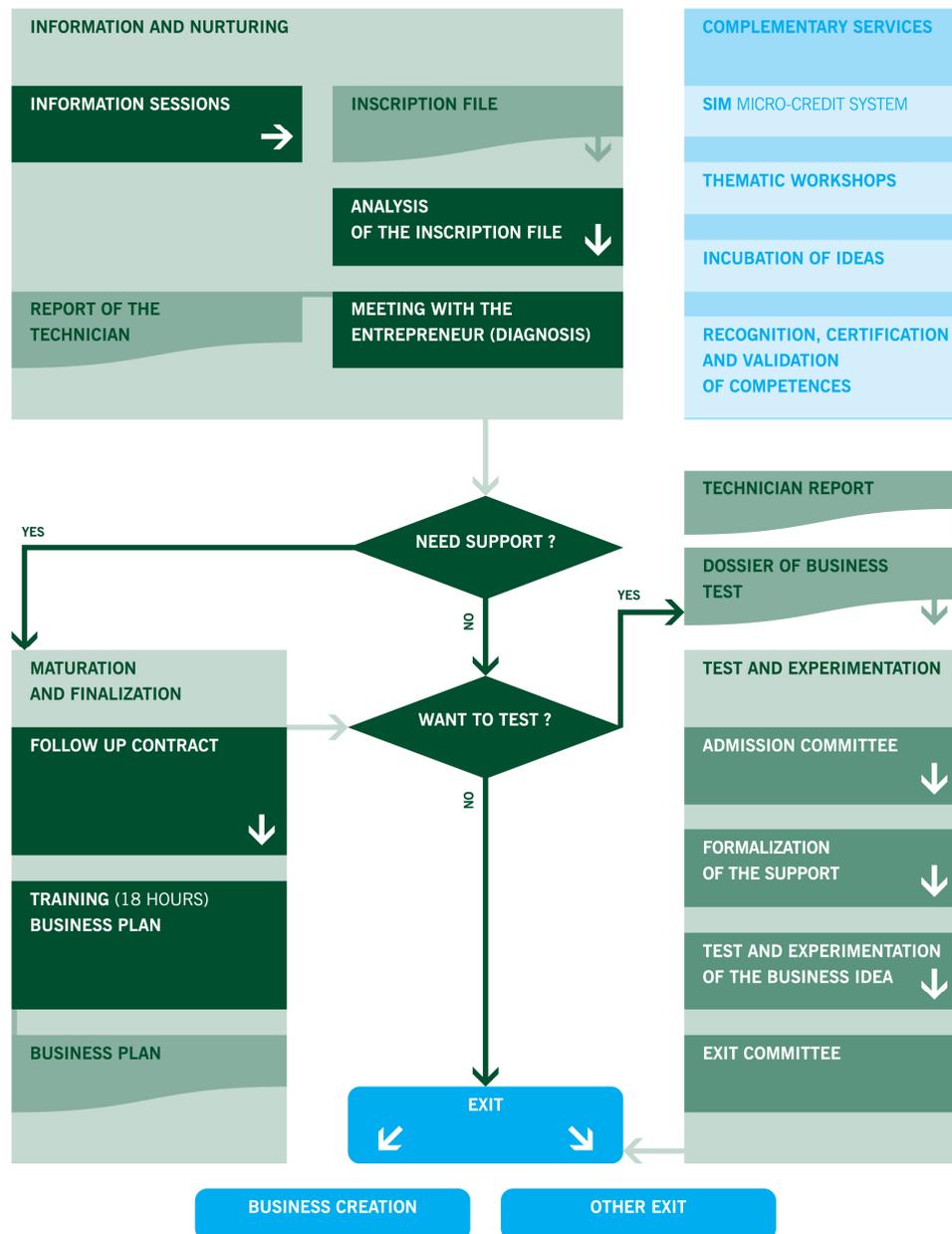
The CRER methodology integrates a support mechanism for both the elaboration of a business plan and the test and experimentation of businesses before the creation of the new enterprise, which is a blend of several methodologies used both in France and in Portugal. It was decided also to incorporate some contributions of an integrated system to support entrepreneurs and a micro credit system in order to support entrepreneurs in financing the creation of their enterprises.

The CRER methodology was developed taking into account both local/regional characteristics of the ADRIMAG's region and the need to support rural entrepreneurs in an integrative way throughout the following three different phases, as shown in figure 1:

- *Information and Nurturing* entrepreneurship and business creation
- *Maturation and Finalisation* of a business plan
- *Test and Experimentation* of business ideas

CRER METHODOLOGY

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(Previous page) Figure 1 – CRER Methodology

Each phase involves different actions with several tasks. Each action has instruments and procedures in order to help the CRER development agents in supporting the potential entrepreneur throughout each phase.

As it is clear from figure 1, the only compulsory phase in which the prospective entrepreneur must participate is the phase of information and nurturing and, according to the diagnosis of the entrepreneur/idea/project, the entrepreneur can proceed either to other phases or to create his/her own business elsewhere.

The methodology was designed to facilitate entrepreneurs' work and was adapted to rural entrepreneurs' needs and motivation.

Information and Nurturing

The phase of Information and Nurturing is the initial phase of the process of rural entrepreneurial support. In this phase the entrepreneur is interviewed and her/his business ideas are assessed. A file is prepared with the personal details motivations of the entrepreneur, his/her business ideas and an analysis of the entrepreneur's needs in terms of support or resources.

The objective of the interview is to analyse the entrepreneur profile, his/her technical and personal competencies, the business idea, the business viability and the possibility of supporting the entrepreneur in the next phases. This action is the most important in the whole follow up process as it ends with a business check-up about the entrepreneur/idea/project concerning the type of support the prospective entrepreneur will be given during the following phases of the process.

Clearly, all entrepreneurs must go through this stage as the diagnosis, as well as other instruments, will reveal the potentialities of the entrepreneur/idea/project.

Maturation and Finalisation

The phase of maturation and finalisation is the phase of elaboration of the business plan. This phase begins with the establishment of a contract between the entrepreneur and the CRER institution in order to define the duration and the terms of support and training.

The training/support is composed by sessions of training and individual support in which the entrepreneur is supported by a technician/tutor in order to elaborate a business plan.

The sessions are supposed to last for three/four months. The tutor helps the entrepreneur with the search and collection of information, and the training received by the entrepreneur is expected to help him/her with the preparation of the business plan.

By the end of this phase, the entrepreneur must have a business plan, an investment plan and a financial plan and must understand, explain and defend their contents to third parties.

Test and Experimentation

The experimentation and test is the most innovative phase of all the process: it allows the entrepreneur to test the business idea, before the formal creation of the enterprise. It can be considered a radical innovation as it was not legally possible in Portugal to incubate business ideas before the beginning of this project.

The entrepreneur will have the support of the CRER structure and his/her tutor in all main business areas: accounting, finance, marketing, communication, image, branding, etc.

Before the formal admittance to the CRER structure for incubating the business idea all the documentation prepared during the previous phase needs to be approved by the CRER Admission Committee. The entrepreneur with the help of the tutor must define the objectives the new venture is to achieve during the test and book a file with the business plan for the Admission Committee to approve. The tutor must analyse this file and check that all procedures and criteria of entry are fulfilled to incubating the new business idea. The admission criterion is based on the potentiality of the entrepreneur and on his/her business plan.

During the test and experimentation, the entrepreneur has the opportunity to test his/her business without the formal creation of the firm. The entrepreneur will have administrative support from the CRER structure, which will be responsible for the emission of invoices and receipts during this phase.

Regular meetings are expected to take place between the tutor and the entrepreneur throughout this phase. Regarding accountancy, the entrepreneur must analyse all accounting incoming and outgoing documents, expenses, sheet balances, funds, etc. Regarding commercial issues, the entrepreneur receives support in the preparation of all communication and image instruments, the promotion of the activity and in the assessment of the monthly sales.

A balance of the entrepreneur's competencies is going to be prepared regularly in order to assess the activities developed and the results obtained during this phase.

Taking into account the both the business idea and the entrepreneur's evolution, the Committee will make some suggestions about the entrepreneur, the business idea and the project in order to a successful new venture can be formally created.

Obstacles and Difficulties

There were two kinds of problems regarding legislation: one concerned with the institution and other concerned with the potential entrepreneur.

Institutionally, prior to this project, there was no legislation regarding ESO providing services of testing and experimentation of business ideas. Regarding the entrepreneur, the Portuguese legislation does not allow an unemployed person to receive social benefits while exercising a new business venture, even in the test and experimentation phase of the new firm creation process.

Portugal did not have any institution with the objective of testing and experimenting business ideas before the CRER project. Due to a gap in the Portuguese legislation, the decision of the DP was to create an association to help the entrepreneurs with all the procedures in the test and

experimentation phase, namely, in order to create the legal environment for the potential entrepreneur to issue invoices and receipts whilst the firm has not legally created.

The test and experimentation phase is a particular step in the business creation process that is not yet legally regulated in Portugal. This follow up process during the test, in which the entrepreneur is active and producing products or providing services, question the entrepreneur status because according to the Portuguese legislation:

- The beneficiary cannot be considered as unemployed because he/she is neither looking for a job, nor is available for work; besides that, the beneficiary is not unemployed, because he/she is working for the promotion and development of his/her own business, because he/she has to sell his/her products and services to test the business and to make the analysis of the economic and financial viability of the business;
- The beneficiary cannot be considered as a trainee, because the training that he/she receives is tailored to his/her business specific needs. Accordingly, the support that he/she receives is not a formal training that fits the legal framework of the professional training in Portugal, namely in terms of structure, modules, timetable and training program;
- The beneficiary cannot be considered as being in a probation, because although she/he develops her/his own activity in a real context of work and for his/her own benefit, he/she does not have practical on-the-job training;
- The beneficiary cannot be considered as a manager, because she/he does not have an enterprise created, the products that she/he sells and the services that she/he develops are not invoiced in her/his name but in the name of the structure that gives him/her the legal and juridical framework.

Clearly, policy programmes are forced and defined to support SMEs needs and are not tuned with entrepreneurial needs as it is clear during the test and experimentation phase of the CRER methodology.

In order to support potential entrepreneurs it is then necessary to define the status of the potential entrepreneurs: Unemployed? Trainees? In probation? Entrepreneurs? Can they be unemployed and can they continue to receive their unemployment benefits?

Solutions

During the experimentation of the methodology, in the implementation of CRER project, it has been very difficult to explain to entrepreneurs the methodology during the phase of test and experimentation because of the innovation of the methodology in Portugal. The status of the entrepreneur during the test was also difficult to define due to the specificity of the test and the support legislation.

In order to overcome these two difficulties the DP decided to create a non-for-profit association (because it could do all the activities and promote all the services of an ESO) to help entrepreneurs in the test and experimentation phase, namely, substituting the entrepreneurs in the case of invoices and receipts.

The solution found taking in account the status of the entrepreneur was that the entrepreneur would be a trainee during the test and experimentation phase of the business idea. This allowed circumventing the gap of the Portuguese legislation that encourages all unemployed to receive training during their unemployment period.

CONCLUSIONS AND MAIN CHALLENGES FOR THE FUTURE

The CRER project is aimed at pre-start and start-up phases of the entrepreneurial process, designed and delivered to address the areas of motivation, opportunity and skills, with the primary objective of encouraging more people to consider entrepreneurship, to move into the nascent stage and proceed into start up and early phases of a business.

The CRER methodology has been under assessment for more than two years and its main objective was to stimulate entrepreneurship, giving potential entrepreneurs the opportunity to develop their skills and competencies, helping them with the elaboration of the business plan as well as with the search for financing in order to create their own enterprises, taking in account their characteristics and profiles.

The main innovation of the project is related with: (a) the integration of different phases in the support of business creation and entrepreneurship that rural entrepreneurs can use according to their needs and goals and (b) the possibility to test and experiment a business without the formal creation of an enterprise. In short, it is a business ideas incubator with a hands-on approach to training prospective entrepreneurs, which is an action oriented to supporting prospective entrepreneurs before the actual creation of the new business.

During the conception of the project and methodology, several barriers emerged due to the lack of support legislation, concerning the structure and the entrepreneur. But the main obstacle was linked with the entrepreneur: the inexistence of a support legislation related with the entrepreneur status was a barrier to the proper implementation and development of the project. The indefinite status of the entrepreneur was clearly an obstacle for the experimentation of CRER project, mainly in the phase of test and experimentation of business ideas. It was very difficult to influence less-favoured target groups of the project to join the project in the phase of test and experimentation of business ideas because they end up losing their unemployed status and therefore their subsidies.

Clearly, this project is the result of a local entrepreneurial initiative targeted for less-favoured individuals of rural areas. It started as a bottom-up approach addressing local less-favoured target groups by an ESO committed to tackle the entrepreneurial process in the pre-start up and start up phases.

The methodology was tested between March 2007 and September 2008 and helped with the creation of seven enterprises and fifteen new jobs. The radical innovation of the methodology in the test and experimentation phase did not reach the defined objectives as it did not help to motivate the main target segment of the project: unemployed people living in rural areas. This gap is the result of a mismatch between the social policy that is particularly focused on the SMEs and not on entrepreneurialism.

If the creation of an ESO helped to overcome some of the operational issues during the test and experimentation phase, the creation of an experimental period helped the CRER partnership in the implementation and spread of the methodology.

The incubation of business ideas needs an endorsement of a governmental organisation in order to tackle it from the entrepreneurial point of view and not from the SME point of view.

If the CRER methodology is to succeed and to disseminate to other rural areas it is important to address the status of the entrepreneurs in order to support them during the phases of awareness, pre-start and start-up. The definition of the entrepreneur status is important because it allows him/her to have a support and a legal status before the creation of an enterprise, namely during the phase of experimentation and test of business ideas.

Another challenge for the CRER methodology is to disseminate its concept in other regions and target groups. As a consequence, the concept is being tested since September 2008 in a Portuguese university and in a professional school in which the main target groups are the following ones: young skilled students, people looking for new jobs or for the first job, which are much more motivated to test and experiment new business ideas.

What seems to be an ideal approach to deal with social and SME policy seems to be endangering the entrepreneurial mindset of less-favoured rural segments of the population. Accordingly, if the CRER methodology is to succeed in what concerns the awareness and the pre-start up phases a more entrepreneurial policy is needed to give those unemployed and less-favoured groups the opportunity to test and experiment their businesses and therefore to play a more active, entrepreneurial role in society.

The main challenge for the future is to overcome top-down approaches to entrepreneurship (and it is very important to bear in mind that Portugal has a very centralised approach to entrepreneurship and innovation) and welcome local innovativeness that follow bottom-up approaches that challenge status quo policies.

Another challenge for the future is to diffuse this approach to other target groups as professional/technical/vocational schools, universities, municipalities, among others, in order to give the society a brand new perspective in entrepreneurial activities.

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INTELLECTUAL ENTREPRENEURSHIP – EXOGENOUS REACTIVE OPPORTUNISTIC ALERTNESS OR ENDOGENOUS PROACTIVE INTELLECTUAL COMPETENCE

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Purpose - In this paper we are trying to enable a shifting from the exogenous reactive paradigm of the opportunistic “hunter” entrepreneur to an endogenous intellectual proactive “philosopher” entrepreneurship.

Design / methodology / approach - We analyse the entrepreneurial intellectual / agentive cognitive “marriage” - Entrepreneurial Knowledge Conversion - by using elements of the Intellectual Capital theory, related concepts of Aristotle, Parmenides and Nonaka (1994). In other words we combine proactive intellectual and active agentive qualities and make therewith a syncrasis (mixture) of both elements – psychron (cold) and thermon (warm) after Parmenides by using the Aristotelian epistemological and ontological dimensions as they have been first drawn by Nonaka (1994).

Findings - The philosopher or “intellectual entrepreneur” Thales has demonstrated that even philosophers could be much better entrepreneurs, if they would have pursuits of such ends. He combined in the above mentioned model proactive (psychron) intellectual and active (thermon) agentive qualities. The concerned relationships are presented in form of an Entrepreneurial Knowledge Conversion (EKC) Concept which ends with the “praxis-friendly” accounts of the Intellectual Entrepreneurial Competence (IEC), the Intellectual Entrepreneurial Performance (IEP) and Intellectual Capital Statements (ICS).

Research limitations / implications - This present paper itself is a syncrasis of concepts, theories and ideas of the past as well as of the approaching future. Either elements or dimensions – past (historic) and future (stochastic) - are difficult “inhales”, so that further research is necessary to tighten the first shaped concept of the Proactive Intellectual Entrepreneurship (PIE).

Originality / value - The below shaped concept of the proactive intellectual entrepreneurship (PIE) offers another paradigm of the entrepreneurial conception. It visualizes the syncratic entrepreneurial intellectual / agentive cognitive elements as an entrepreneurial proactive concept which subsumes an intellectual entrepreneur as perceptor (ET), as conceptor (TT), as converter (TE) and as distributor (EE)¹⁶⁶.

Keywords: Intellectual Entrepreneurship, Corporate Performance & Competence

PROLEGOMENA

When Aristotle (Politika, A 8-9, 1257 α , 5-15) is saying that the price of goods depends on buyer’s own perceived usage utility he is therewith addressing the *subjective ophelimistic price theory* or the capitalistic based view on elasticity of demand. But when goods are objects for exchange - he continues - and not for the own usage, then the related value comes up due to the cost of the product’s ingredients like material and labour. This second case addresses the *objective materialistic price theory* which has been first re-developed by the Scholastics in the

¹⁶⁶ E = Explicit, T= Tacit

medieval times and influenced later on the “Marxist view” of added value of labor (Xenophontis, *Oeconomicus*, 1826, I, 10-12).

Therefore accounting is predetermined either as a progressive one (progressive cost accounting, *expenses oriented*) or as a retrograde one (retrograde cost accounting, *earnings oriented*). In this way the two economic systems of “capitalism” (subjective, earnings, profit) and materialism or “communism” (objective, expenses, labour cost) found their prodromal theoretic thinker in the person of Aristotle and his *value theory*. He determined somehow the related entrepreneurial business directions of the cost-minimising and / or revenue-maximising entrepreneur. Even Adam Smith in his work “*An inquiry into the nature and causes of the Wealth of Nations (1776)*” made the distinction between *value in use* and *value in exchange*, while Francois Quesnay mentions a *valeur usuelle* and a *valeur vénale* (Houmanidis, 1991).

Although entrepreneurship in our times is understood mainly in economic dimensions, in the antiquity it was more then obvious that any kind of organized and coordinated activities requests outstanding “entrepreneurial” qualities (Mavridis, 2009). Entrepreneurship in the antiquity was held as a special kind of “*profession*”, because the related businesses were risky and uncertain, especially in the distant seaborne trade. Therefore entrepreneurship has been philosophically (“*episteme*”) analyzed and scientifically (“*techne*”) practiced in the daily life¹⁶⁷.

Historically the centrality of the entrepreneur concept is not really a new one. It has been recognized by ancient writers and philosophers in Greece¹⁶⁸ as an important factor for wellbeing of the state. Xenophon (Mavridis, 2009) had not only recognized the “physiocratic” importance of the land (soil) for fruitful harvesting, but also the impact of skills and knowledge (“*knowledge*” or “*intellectual entrepreneur*”), especially when he talked first about the entrepreneur and distinguished so far between the functions of *manager* (knower) and *entrepreneur* (owner) (Mavridis, 2009).

As mentioned above the classical entrepreneur conceptional discussion itself has been started in the antiquity mainly by the ancient Socratic authors Xenophon and Aristotle (Karayiannis, A., 1990). In the modernity the mentioned concept has been elaborated in detail by Cantillon (1680-1734), Jean-Baptiste Say (1767-1832), Alfred Marshall (1842-1924), Joseph Schumpeter (1883-1950), Frank Knight (1885-1972) and Israel Kirzner¹⁶⁹. These mentioned economists introduced a paradigm shifting in the conception of *successful entrepreneurship* or at least they have put an additional accentuation¹⁷⁰. The crucial points for the last six thinkers are dealing with the entrepreneur’s position in the economy as a whole and within its firm, with the definition of his task, with his personality and related abilities, with the determination of the demand and supply in the market and finally with the expected returns and drives (Van Praag, 1999).

¹⁶⁷ For Schumpeter’s “Gap position” see Mavridis (2009).

¹⁶⁸ See the works of Xenophon (430 – 354 B. C.) “*Oeconomicus*” and “*Poroi*”. See also Mavridis (2009)

¹⁶⁹ Karayiannis, A. (Karayiannis, 1990) mentions in his work “*Democritus on Ethics and Economics*” that Democritus is in many entrepreneurial issues the “teacher” of the above mentioned Socratic philosophers.

¹⁷⁰ For the issues of other authors like Schmoller, Sombart, Walras, Weber, Wieser and others see Pittaway (2005) and Ebner (2005).

Cantillon (1680-1734) introduced the concept of the “entrepreneur” and had acknowledged the entrepreneurial function¹⁷¹ while he is distinguishing the three types of economic agents. The traditional capitalists or landowners are representing in the intellectual capital theory the physical capital, the entrepreneurs have their equivalent in the structural capital or arbitragers or “equalizers”¹⁷² and the workers in the human capital. The entrepreneurs finally are facing the dilemma of *risk* and *uncertainty*¹⁷³.

Jean-Baptiste Say (1767-1832) in his work “*A Treatise on Political Economy or the Production, Distribution and Consumption of Wealth*” (1803) puts an additional dimension in the entrepreneurial concept which sounds “fresh” but it is not such (see Xenophon’s work “*Oeconomicus*”, in: Mavridis, 2008a), namely the role of the manager.

In this context Say declares the agriculture industry (physiocratic, physical capital), the manufacturing industry (like structural capital) and the commercial industry (like human capital) as the only types of industry which are able to create value (Van Praag, 1999). He further seeks related connotations between the three mentioned industry types and the three types of knowledge: theoretical *intellective* knowledge (*episteme*), applied *agentive* knowledge (*techne*) and executed knowledge (*praxis*).

While *episteme* flows easily to other national economies (knowledge dissemination) the areas of *techne* (production) and *praxis* (distribution) are pure entrepreneurial domains, where the entrepreneur creates products for human needs and through this consumption he is gathering all those monetary revenues to use them again as an input for the production of goods. In this way the entrepreneur creates wealth for land owners (rent for physical capital), for capital owners (interest for monetary capital) and labor owners (wages for human capital).

Although the early neo-classical economists like A. Marshall (1842-1924), F. Y. Edgeworth (1845-1926) and A. C. Pigou (1877-1959) had seriously included the entrepreneur concept in their investigations the later neo-classical successor thinkers had almost “erased” it. The “mechanized” homo-economicus concept has formally (dis-) solved all problems with its “imperfect” perfectionism. In a system without any asymmetries concerning information, uncertainties, risks, preferences and equilibriums there is no need for entrepreneurs even no need for human beings but for *robotized men* or *humanized machines* – maybe the perfect consequence of the Cartesian “*cogio ergo sum*” doctrine (Nonaka, 1994).

Alfred Marshall (1842-1924) has developed a concept introducing *innovation*, *alertness* and a *general ability* as a supreme quality. Joseph Schumpeter (1883-1950) most ideas are put in his work “*The Theory of Economic Development*” (1911)¹⁷⁴. He is supposed to have turned down the existing entrepreneurial paradigm: from *manager* to the *leader* of the firm, from innovation

¹⁷¹ Cantillon declares in his posthumous publication “*Essai sur Nature du Commerce en Générale*” (1755) the entrepreneur as a contributor or enabler or driver for the society’s economic value, In: Praag Van (1999).

¹⁷² Cantillon sees as the central role of entrepreneur that of the exchanger and equalizer of supply and demand!

¹⁷³ Landowners and workers are not facing risk and uncertainty because the interest rates as well as the wage rates are contractually fixable, but selling prices not, see also Mavridis (2009).

¹⁷⁴ He represents the Austrian School and was educated under Boehm-Bawerk and influenced by Walrasian general equilibrium thinking (“creative destruction”).

practitioner (applier or executor) to innovation creator, from exogenous innovation to endogenous, from *agentive entrepreneur* (techne) to *intellective entrepreneur* (episteme), from entrepreneur with agentive potential to one with intellective competence or expertise¹⁷⁵.

Frank Knight (1885-1972) highlighted the difference between *risk* and *uncertainty* in his thesis "*Risk, Uncertainty and Profit*" (1921). Uncertainty (unlike risk) is a type of probability without any valid basis, without empirical past values, because it concerns outcomes of unique events. Israel Kirzner emphasizes the *entrepreneurial alertness* for discovering and exploiting profit opportunities and doing so he forms the equilibrating forces of the market (Nonaka, 1994).

For many centuries the above shaped paradigmatic entrepreneur typus of a hunter waiting to see first the birds (opportunities) flying (exogenous) along and then take action as "entrepreneurial hunter". This means that the golden rule of entrepreneurship has been focused on action – either active or reactive. This "hunter society" related entrepreneurial stage of "wait and see" formed an almost purely agentive entrepreneurial "thymosophy" or entrepreneurial *modus vivendi*, whereby the intellective aspect comes "under the wheels".

It is known that the philosopher or "intellectual" Thales (6 c. B. C.) has bought in advance all olive presses, because he has seen during the springtime that the olive trees were full with fruits. In fact he made big business as the only owner of oil making manufactures in his home country, in Asia Minor. He just wanted to demonstrate to the "non-intellectual" entrepreneurs of his time that even philosophers could be much better entrepreneurs; only as true philosophers they do not have pursuits of such ends. In other words Thales combined *proactive* intellective and *active* agentive qualities and made therewith a *syncrasis* (mixture) of both elements – *psychron* (cold) and *thermon* (warm) after Parmenides. According to the above mentioned the intentions of the present paper are:

- First to visualize the entrepreneurial intellective / agentive cognitive "marriage" (Entrepreneurial Knowledge Conversion - EKC) by using elements of the Intellectual Capital theory, related concepts of Aristotle, Parmenides and Nonaka.
- Secondly to present the explicit entrepreneurial related manifestation in form of accounts either as Intellectual Entrepreneurial Competence (IEC) or Intellectual Entrepreneurial Performance (IEP).
- Finally the "accountant-friendly" used Intellectual Capital Statements (ICS) should help to state the obvious "entrepreneurial practicability" of the intellectual entrepreneurial proactive concept which subsumes an intellectual entrepreneur as perceptor (ET), as conceptor (TT), as converter (TE) and as distributor (EE).

INTELLECTUAL ENTREPRENEURSHIP

¹⁷⁵ Houmanidis (1991) is hitting that point when mentioning that Schumpeter seems to ignore the contributions of the ancient thinkers and especially that of Xenophon, Plato and Aristotle to these mentioned points.

Intellectual capital taxonomy

The Socratic philosophers (Xenophon, Plato, Aristotle) and up to the late ones of the 19th and 20th century knowledge in its many facets has been matter for extensive and exhaustive discussions. They asked thoroughly and theoretically about the phenomenon “knowledge”, its essence, properties and its perceiving modes. Only they have recognized knowledge as a special input type as having many interesting aspects and characteristics in context with the entrepreneurial activity (Mavridis, 2009). From the moment on that production became a more complicated and more sophisticated “process chain» and the related “value chain” has been shifted from its tangible to its intangible determined character the cognitive values have replaced the materialistic and technological ingredients, so that the supplies and the deliveries of goods are replaced through supplied (used) and delivered (created) knowledge values (“*knowledge network*”).¹⁷⁶ From the beginning of the value chain (supplier) up to its end (customers) the share of the “cognitive inputs” is steadily increasing¹⁷⁷. In this way more and more knowledge or cognitive “parts” are included or produced and also “consumed”. This means that the classic economic paradigm turns around where tangible traditional views, aspects and concepts are reconceptualized getting an intangible touch.

This turning to the “knowledge society” (Nonaka, 1994) has its consequences for the whole economy and especially for the entrepreneurial corporates. The questions raised now have to do with the whole range of decisions beginning from the needs of the customers and ending in prescriptions for the suppliers. The whole tangible transformation (production) chain has to be reoriented due to the intangibility of the cognitive “resources”. Organizations have to think about the production, distribution and acquisition of cognitive or intellectual resources, intellectual capital and intellectual “spare parts”. Therefore the entrepreneurial role has to be aligned with the new cognitive processes. As Nonaka precisely mentions the western thinking was dominating for long time by the finite “information-processing”¹⁷⁸ (MIS – Management Information Systems) mentality looking always for “problem solving” or mechanistic production decisions, while the new cognitive shifting asks for holistic “knowledge creation” (MIS - Management Innovation Systems) or “problem creation” (Nonaka, 1994; Mavridis, 2009).

In this context one of the supreme entrepreneurial attributes – *innovation* – cannot be sufficiently explained and understood with the “solving” mentality but more with the “creating” one. Solving is more equivalent to the entrepreneurial maxim of the *invention* doctrine, which is in fact directed towards quantitative colored solutions or “combinations”. Obviously the assumption of the exogenous “technological change” is tightly connected with the *inventional* or problem solving thinking, while the endogeneity orientation of technological change leads to *innovation* and knowledge creation. Therefore the apparent conclusion is the quest for a new entrepreneurial paradigm – the *knowledge entrepreneur* - the “knowledge or

¹⁷⁶ Knowledge users (buyers, importers) and knowledge producers (sellers, exporters) of cognitive production / consumption resources

¹⁷⁷ Imagine the value structure (hard parts, soft parts and firmware parts) of any product in the past (a car build 1900) and today. See also Coulson-Thomas, 2000.

¹⁷⁸ The acronym “MIS” (Management Information Systems) should be read from now on as “Management Innovation Systems”!

problem maker”, not the “*knowledge or trouble-shooter*”. This concerns not only the organizational structures and processes, but the whole “cognitive infrastructure” of the enterprise. The classic high level “authorities” for knowledge creation, production, documentation and dissemination – like universities, technological institutes and other related research centers – have to rearrange their passive commitment as only providers of inventional problem solving knowledge to an active role of innovation catalysts.

Intellectual entrepreneurial concept

The knowledge subject as a part of the knowledge process has also been discussed by the above mentioned philosophers and expressions like “Know-What” and “Know –Who” have been established by Aristotle first. While the object based knowledge is divided in tacitly or Nooumenon (Plato) and explicitly perceived or Phenomenon (Aristotle) one, the subject based (human) knowledge is for both (Plato and Aristotle) either tacit (T) or explicit (E). Tacitly or explicitly created knowledge presumes living humans (ontology) and nature or cosmos (epistemology) and “the continual dialogue between tacit and explicit knowledge” dimensions (Nonaka, 1994).

This dialogue or process of knowledge creation passes some phases or steps, like (a) knowledge acquisition (information flow), (b) knowledge creation, (c) knowledge manifestation and (d) knowledge application. In the acquisition phase information helps the person to “update” his “data” base, whereby explicit information (E) is converted to tacit (T) knowledge (1.ET). In the creation phase the person rearranges, re-concepts and updates in his mind his knowledge base concepts according to his intentions, commitments, beliefs and ethical values (2.TT). The knowledge manifestation concerns the transformation of tacit knowledge to the explicit one, whereby the person manifests his tacit knowledge by using the cognitive infrastructure of the enterprise and makes it available to the organization (3.TE). In the last step the explicit made knowledge is distributed to the “stakeholders” or to the society itself by using the relational “knowledge network” (4.EE) (Nonaka, 1994; Mavridis, 2008).

The above mentioned modes or modules of *knowledge conversion* are four different autonomous but also integrated states of knowledge creation and explain four *individual* and *organizational* types of knowledge conversion (Nonaka, 1994):

1. In the first (1.ET) mode the perceived environment (object, “*Know-What*”) is tacitly individualized (“**internalization**”) as an Aristotelian *eidōs* (mental object) (**LC – Learning or Systemic Capital**).
2. In the second (2. TT) one -defined as “**combination**” - the individuals readjust or update their tacit (analogue) knowledge (“*Know-Who*”) base (**HC – Human Capital**).
3. In the third (3. TE) one which is named “**socialization**” the person converts tacit mental models (“*Know-How*”) to common (group or corporate) explicit knowledge patterns (**SC – Structural Capital**).
4. In the fourth (4. EE) phase defined as “**externalization**” the explicit “digitized” (“*Know-When*”) knowledge base is distributed or spilled over to the “Stakeholders” or society or culture (**RC – Relational Capital**).

Existing knowledge (prior knowledge) as an explicit, digitized or documented knowledge is declared as a “stock” of knowledge which can be transferred or disseminated (“flow” knowledge). This *knowledge flow* enables creation of new knowledge “under production” or “under construction” (Lambooy, 1997). This type of knowledge is called learning or systemic knowledge (LC). The meeting of both knowledge types (old and new “tacit” knowledge) takes place in the brain of the “*knowledge capitalist*”, which forms the *human capital* (HC).

Since tacit knowledge became explicit or documented, it can be used to create value in form of products, services, methods or even new knowledge and is part of hardware (matter), software (methods, algorithms) or brain ware (ideas, concepts, attitudes, values). This type of tacit knowledge expressed as technology capital is regarded as *structural capital* (SC).

Every firm usually wants to distribute the own produced values (products, services, methods, ideas or knowledge) to customers and other “stakeholders” and also needs to receive from suppliers their produced values (products, services, methods, ideas or knowledge). This type of knowledge working behind is in reality an exchange enabler and is called relational network or *relational capital* (RC).

The sum of learning capital (LC), human capital (HC), structural capital (SC) and relational capital (RC) is defined as the intellectual capital (IC). Structural capital (SC) and relational capital (RC) are mainly visible or explicit and therefore form the tangible part of the intellectual capital (IC) while the human capital (HC) is its intangible part. Inwarded knowledge tends to address self-administrative issues, which deal more with the firm (internal environment) itself. Discussing about the specific contribution of intellectual capital on growth it is necessary to understand it, to express its *structure* and finally to *measure* it. Still now the wish of the academic community to understand IC is more than apparent so that many writers have discussed about the essence of human capital, knowledge or intellectual capital (Bontis, 1998; Nonaka & Takeuchi, 1995; Mouritsen, 1998; Sveiby, 1997; Edvinsson & Malone, 1997; Mavridis, 2004, Mavridis 2006).

All of them have accepted commonly that the main parts of IC are the human capital (HC as competencies of the employed staff), the organizational capital (OC as firmware in form of procedures, documentations, systems and methods) and the relational capital (RC expressed as customer / supplier based advantages). Intellectual capital (IC) is therefore the sum of individual competencies (HC), structural capital (SC), organizational structures (OC) and relational capital (RC) as the sum of dynamic relationships (like “supplier and customer” relations in its broader cast). Organizational capital (OC) and customer (supplier) capital (RC) are said to be the structural capital (SC) or the expressed or manifested knowledge, while the firm’s total IC is equal to the HC and SC (Scandia’s IC system).

When the individual *tacit* human capital (latent capital) is getting transformed to *explicit* collective capital (structural or manifested capital) then the knowledge capital is a *flow*, otherwise a *stock capital* - stock or structure (Bontis, 1998). As a resultant of all these thesis and antithesis the synthesis seems to be a pragmatic path melting (grinding and / or polishing) all the extreme tensions. The question is like in Parmenides work the *analogy* or portions of the *synchysis* mixture (*psychron* = cold and *thermon* = warm) (Andriopoulos, 1995, pp. 53 ff). This addresses the problem of the dominating or subordinating streams or the question of supremacy

of episteme or that of techne, this of spirit or that of matter, mind or body, science or technology, sophia or phronesis (Mavridis, 2006).

We are trying therefore when taking into consideration the *syncratic* dimensions (“*hypervallon*”= *additive*) of Parmenides, the Aristotelian ontological and Socratic epistemological aspects mentioned by Nonaka (Nonaka, 1994) to reshape a new intellectual concept for the entrepreneurial activity- *The Concept of Intellectual Entrepreneurship (CIE)*. Due to the above *syncrasis model* we distinguish between four types of *intellectual thinking* (episteme) or *agentive doing* (techne) concerned with the *epistemological* dimension (Figure 1):

1. Learning or systemic capital (psychron / intellectual - sophia) – perceptive
2. Human capital (psychron / intellectual - episteme) - conceptive
3. Structural capital (thermon / agentive - techne) - applicative
4. Relational capital (thermon / agentive - phronesis) - integrative

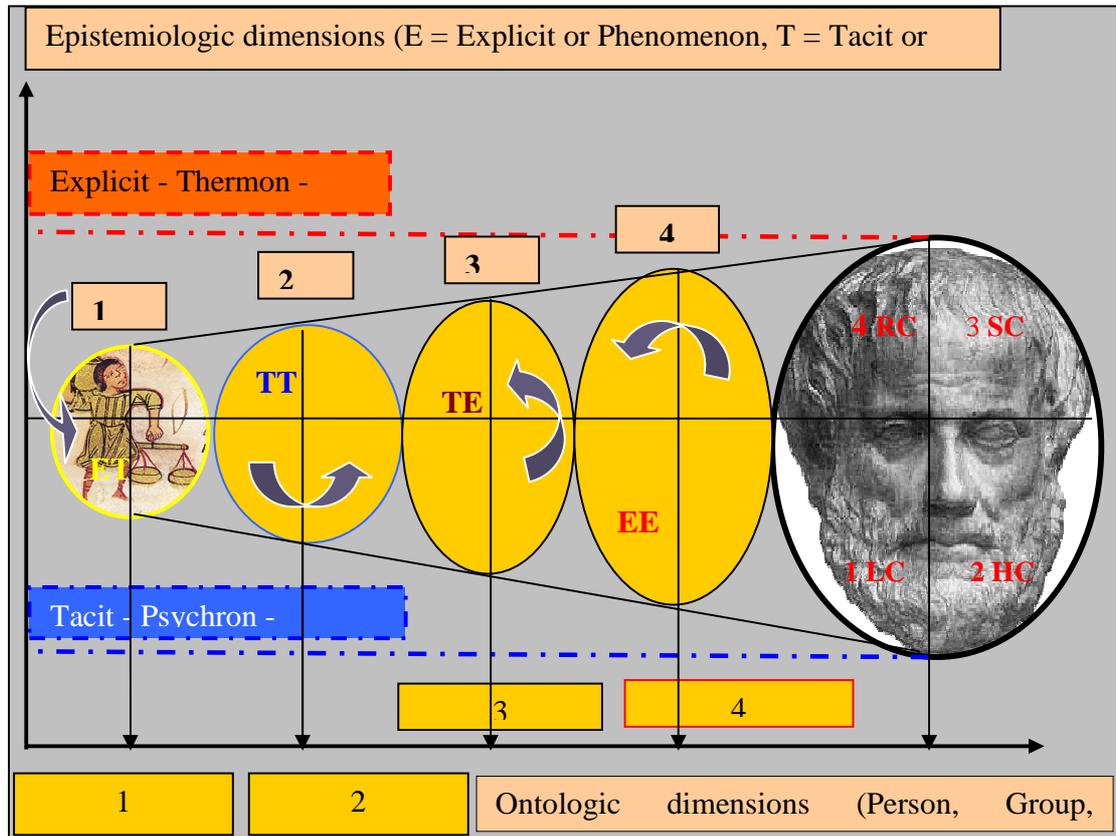


Figure 1: The Spiral of Entrepreneurial Knowledge Conversion

In the level of the individual or ontological knowledge the synchrasis equivalents are the following:

- 5. Know-What (knowledge, science, *psychron*, sophia) – Learning capital (LC)
- 6. Know-Who (person, authority, *psychron*, episteme) – Human capital (HC)
- 7. Know-How (skills, methods, *thermon*, techne) – Structural capital (SC)
- 8. Know-When / Where (duration, frequency, extension, *thermon*, phronesis)-
Relational capital (RC) (Nonaka, 1994; Mavridis, 2009).

The above types 1, 2 and 5, 6 form the *individual knowledge* in its tacit (episteme) and explicit (techne) dimension. The types 3, 4 and 7, 8 form the *collective knowledge* with their embedded tangible and intangible aspects. Individual as well as collective knowledge is determined by the subject (knower), the object (known) and the related equivalents competence (know-how) and performance (know-when):

- 9. The Known (either perceptive or integrative) represents the *working or operating*

capital of the firm (Fenstermacher, 1994).

10. The Knower (either conceptive or applicative) represents the *starting* (human) capital of the firm.
11. The Knower competency (conceptive – applicative competence) represents the individual ability to express its (tacit) knowledge through action (agentive knowledge potential).
12. The Knower performance shows the ability of the firm to transform the individual (tacit) knowledge into explicit systemic power (perceptive – integrative) for the firms' internal organization itself (inwarded or intrinsic organization) or to bring it towards (customers) and upwards (suppliers) the value chain or stakeholder line (outwarded or extrinsic organization) (Price, 1997).

The possible combinations of the above Matrix on the related axis points (Competence as micro dimension and Performance as macro dimension) are (Figure 2):

13. Perceptive state (cold) & Conceptive state (cold) – Human Capital (HC)- Know-Who (Function)
14. Applicative state (warm) & perceptive state (cold) – Structural Capital (SC)- Know-How (Task)
15. Conceptive state (cold) & integrative state (warm) – Systemic or Learning Capital (LC)-Know-What (Internal organization)
16. Applicative state (warm) & integrative state (warm) – Relational Capital (RC)- Know-When (External organization)

With an additional restructuring and in order to provide a balance sheet scheme with extensions to a better prognostic and diagnostic accountability we get *vertically* the left side (HC, SC) and the right side (LC, RC). The so created balance between HC, SC and RC, LC expresses the

- *Human Entrepreneurial Competence* (HC, SC) and its equivalent value chain or
- *Stakeholder or Entrepreneurship Performance* (RC, LC).

When turning or changing the sides we get a *horizontal* division in two equivalent parts which are *Technology* (SC, RC) and *Methodology* (HC, LC):

- *Agentive Entrepreneurial Potential* (active Technology - SC, RC) and the
- *Intellective Entrepreneurial Potential* (proactive Methodology - HC, LC).

When *crossing* the balanced sides we get the following four entrepreneurial competence / value node combinations:

- *Agentive Entrepreneurial Competence* (Human Competence - Agentive Potential)
- *Agentive Entrepreneurial Value* (Stakeholder Performance - Agentive Potential)
- *Intellective Entrepreneurial Competence* (Human Competence - Intellective Potential)
- *Intellective Entrepreneurial Value* (Stakeholder Performance - Intellective Potential)

We see that all nodes are syncrasis points of more properties and expresses cognitive dimensions dealing with the *person*, the *knowledge*, the *system* and the *relations*. The model combines personal (individual) and organizational (collective) attributes in order to express *individual entrepreneurial competence* and collective or *organizational entrepreneurship performance*. The succeeding syncrasis mixture (cold - warm) states, like the conceptive (cold), the perceptive (cold), the applicative (warm) and the integrative (warm) deliver the four basic IC parts (Figure 3):

- HC- Human Capital
- SC - Structural Capital
- LC –Learning Capital
- RC –Relational Capital

HC and SC are the basis for *Human Entrepreneurial Competence*, while RC and LC the Stakeholder, Corporate or Entrepreneurship Performance. The active *agentive potential* has its source in the out-warded SC and RC, while the *intellective potential* in the in-warded HC and LC. Finally *Intellective Entrepreneurial Competence* is equal to *Intellective Entrepreneurial Value* (IEC = IEV) and *Agentive Entrepreneurial Competence* is equal to *Agentive Entrepreneurial Value* (AEC = AEV). In other words to every competence element exists an equivalent value element (balance sheet), so that we can say

- **IEC** - Intellectual Entrepreneurial Competence (agentive + intellective)
- =
- **IEV** - Intellectual Entrepreneurial Value (agentive + intellective)

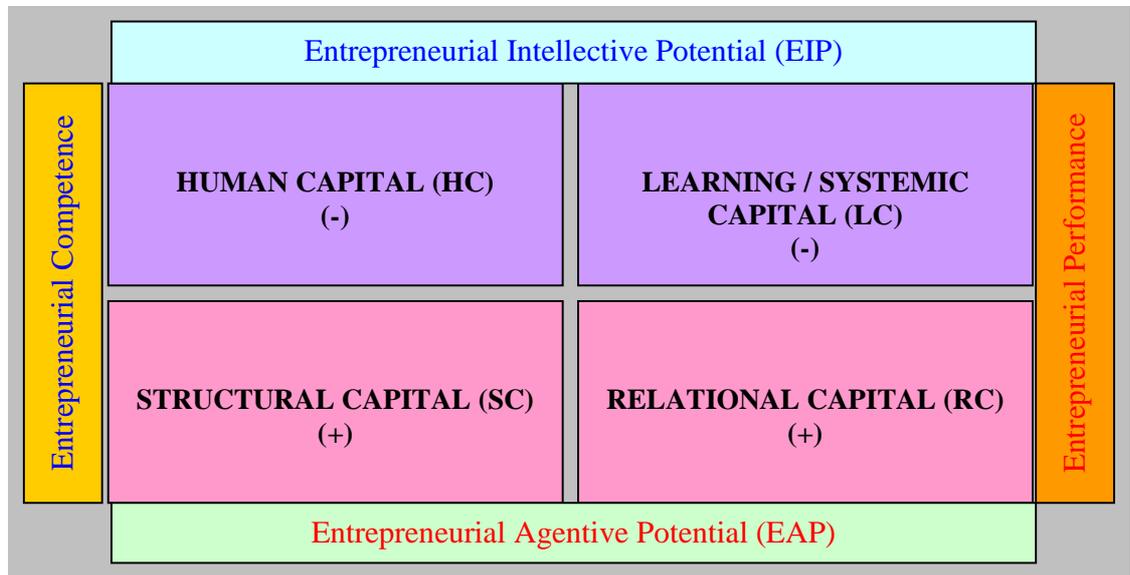


Figure 2: Modes of Entrepreneurial Knowledge (Mavridis, 2008b)

Having all above in mind the *harmonizing* (not equalizing – downwards or upwards) of the proportions of the cognitive elements first and *forcing* the intellectual (cold) and agentive (warm) elements in order to create a reasonable entrepreneurial intellectual capital value is the indicated reasonable intellectual entrepreneurship strategy. The crucial point is the difference (Parmenides called it “*hypervallon*” = surplus, the “value-added”, see Andriopoulos, 1995, pp 53 ff) between the cold / warm states and its relative percentage!

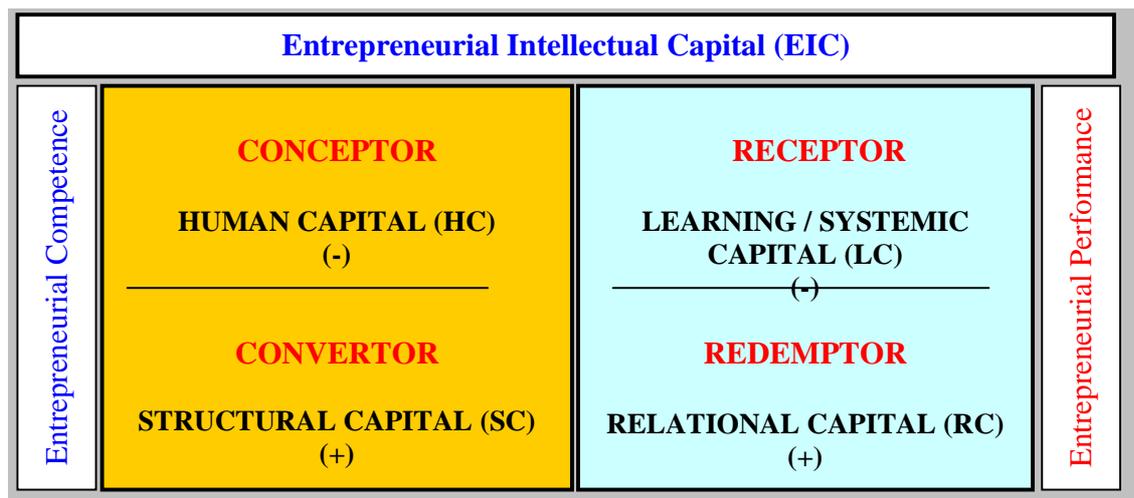


Figure 3: Entrepreneurial Intellectual Capital (Mavridis, 2008b)

CONCLUSIONS

For long time the classic entrepreneur was like a hunter waiting for exogenous flying “fried chicken” before taking action as entrepreneur. This entrepreneurship paradigm has been focused only or mainly on action – whether active or reactive. This “wait and see” concept formed an almost purely *agentive* entrepreneurial behavior. Therefore and so long innovation and the related entrepreneurial opportunities have been regarded as an exogenous factor directed through an imaginative “invisible hand” there was no need to think about the source of innovativeness and change so far. Since it is recognized that entrepreneurial opportunities and technological change are determined by endogenous caused and knowledge determined innovations the *causa* knowledge management and intellectual capital has advanced to non-plus-ultra topic. Although it is easy to realise that any firm could not exist if its personnel would leave suddenly its jobs, the new (old) concept of the “knowledge firm”, “knowledge entrepreneur” or “knowledge society” remains still a wishful dream in the daily entrepreneurial praxis. It is not intended to explain all the reasons now, but it seems that one of the most important is the inability of understanding the essence, provenience and emergence of the topic.

From the antiquity up to the modernity many thinkers have tried to grasp the real essence of the “knowledge” as well as that of the role of the “entrepreneur”. The (Pre) Socratians have tried to shed light on the cognitive “black box” and have made reasonable progress so far that all the succeeding thinkers are following more or less the two main thinkers of the antiquity – namely either Plato or Aristotle. In the modernity the French Cantillon had introduced the concept of “entrepreneur”, while others enriched the whole concept by introducing other aspects. Jean-Baptiste Say sees (like Xenophon before him) the entrepreneur as manager. Marshall first puts the dimension of innovation into discussion and in this way he made knowledge to an entrepreneurial agenda. Schumpeter continues with the ideas of Cantillon (entrepreneur), Say (manager) and Marshall (innovation) and declares the entrepreneur as the engine (not just the wheels) of the economy, who acts as a dynamic *inventor* and *innovator*, as a manager and leader, as a creator of endogenous based business opportunities. Knight makes difference between the Schumpeterian “*non-risk bearer*” and the true decision-maker who is managing the firm through true entrepreneurial judgment (when true uncertainty exists as a probability without empirical data of the past - non-routine tasks) and estimation (when true risk exists as a probability with empirical data of the past).

This Knightian approach addresses again the emergence of knowledge and especially the new knowledge, because the solution of non-routine tasks requests the application of “new ways”. Kirzner highlights the issue of the competence of error correction (“trial-and error”) and so reintroduces Arrow’s “learning-by-doing” which is tightly connected with the intellectual aspects of the entrepreneurial activity. While the above mentioned thinkers elaborated their entrepreneurial issues some others tried to explain in a descriptive way the production function or in other words the role of the various factors or resources for the economy. Almost parallel to the above mentioned entrepreneurial views, economists¹⁷⁹ defined equivalent production function or made attempts to explain what, how and why has an impact on the create value of the economy.

¹⁷⁹ Solow, Mincer, Lucas, Romer

Their production functions or growth¹⁸⁰ models regard almost unisono capital stock and labor as explanative factors for economic welfare. Later on literacy and experience follow as explanative variables for growth. The production function of Acs (Acs et al, 2005) takes into consideration the entrepreneurial knowledge, the expected earnable profits, the earnable wage rates, the intensity of knowledge exploitation, barriers to entry the market and other factors. In this context the most important conclusion – due to a related analysis - is that the above mentioned growth model confirms entrepreneurship as strongly and significantly depending on the level of knowledge stock. This goes quite conform to the recognition of the endogenousness of innovation and implies the importance of knowledge and its creation and distribution (spillovers).

Having in mind Nonaka’s approach, Aristotle’s epistemological and ontological diacritics but also considering the syncrasis theory of Parmenides we developed a spiral model of knowledge modes which is fully applicable to the entrepreneurial concept. In this way we developed the typology or taxonomy of knowledge production and divided the related intellectual capital into four categories (LC – Systemic or learning capital, HC- Human Capital, SC – Structural Capital and RC – Relational Capital).

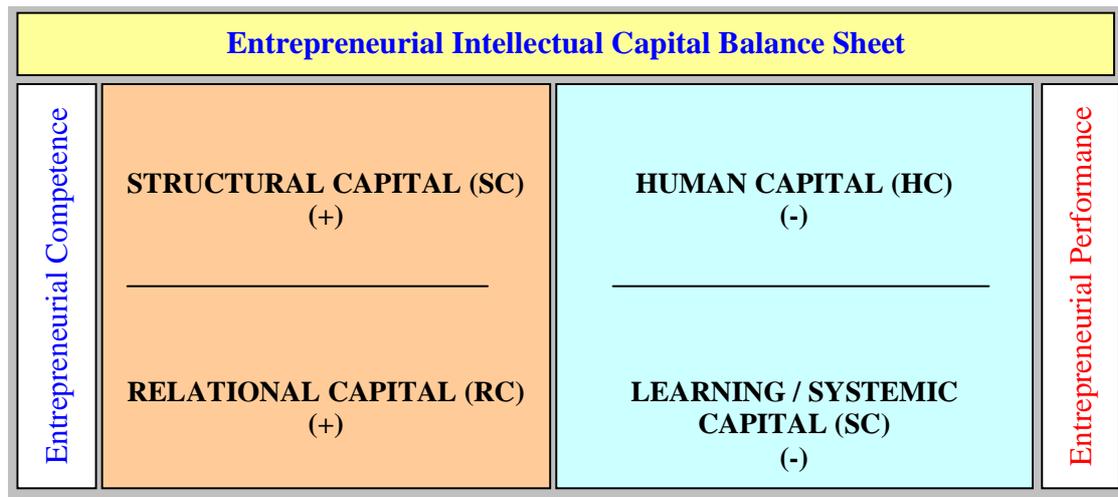


Figure 4: Intellectual Capital Balance

Through arrangements and rearrangements of the basic concept we are constructing a new intellectual taxonomy which is able to show some distinguished entrepreneurial aspects, like intellectual and agentive potential, entrepreneurial intellectual capital and its competence or performance dimensions. In order to present those dimensions or “states” in the known

¹⁸⁰Gunnar Myrdal (Myrdal, 1956) in his research about economic growth elaborated a distinction between the qualitative term development and the quantitative one growth, meaning that first the qualitative base has to be established before quantitative effects can occur. This point stresses the fact that quantitative tactical measurements grasp only when qualitative strategic infrastructure (strategic framework) has been set before. This distinction addresses the issue that knowledge or cognitive (qualitative) abilities are especially increasing when used while traditional resources and other production factors have diminishing returns.

“familiar” financial statement manner we reconvert those aspects into an entrepreneurial intellectual capital balance sheet (cognitive balance sheet, Figure 4) and entrepreneurial intellectual capital profit & loss account (cognitive profit & loss account, Figure 5).

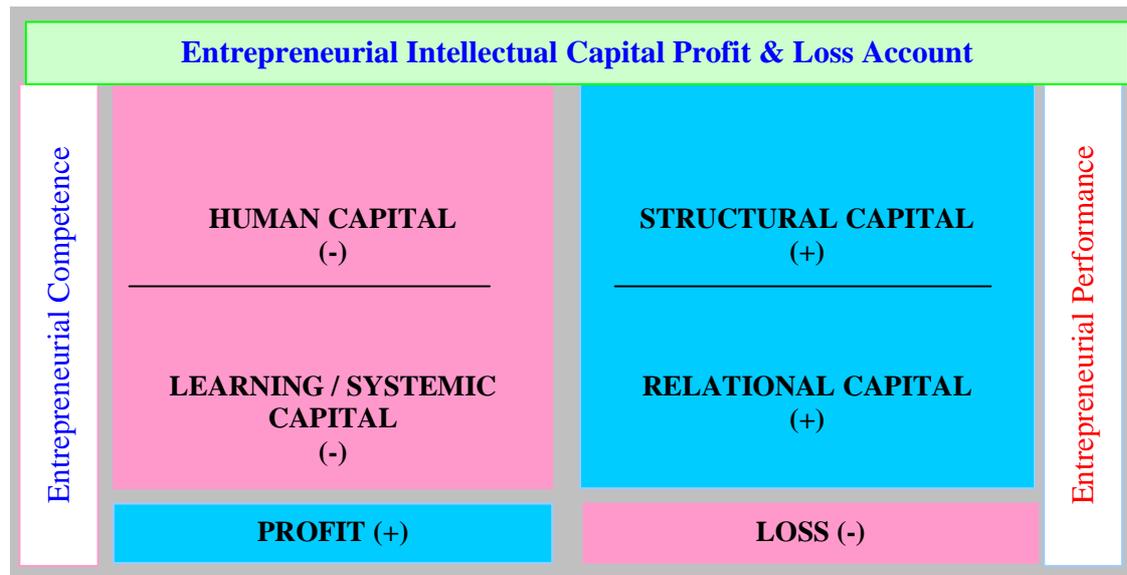


Figure 5: Intellectual Capital Account

Due to the above mentioned results the entrepreneurial activity means acquisition (ET / LC), conception (TT / HC), documentation (TE / SC) and distribution (EE / RC) of the knowledge initiated innovation capital and entrepreneurs could be therefore divided in perceptors, conceptors, converters and distributors of intellectual capital based innovation. The above mentioned philosopher and “intellectual entrepreneur” Thales combined proactive intellectual and active agentive qualities so that he passed through all stages of intellectual entrepreneurship, as perceptor (ET), as conceptor (TT), as converter (TE) and as distributor (EE).

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TELEMEDICINE: OBTAINING THE COMPETITIVE ADVANTAGE IN HEALTHCARE SERVICES

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INTRODUCTION

The fact that Telemedicine and robotic surgery applications are increased in quantity and ratios of use makes this Medicine field extremely interesting. Taking into consideration that we refer to a brand new kind of medical application, the need to examine and study the object becomes more requisite.

Telemedicine application in medical daily routine is now reality, including teleconference and telesurgery networks which are more and more applied and developed.

DEFINITION OF TELEMEDICINE

«Telemedicine is the rendering of medical services even in the cases of distance between the patient, the doctor and other specialized information and knowledge».

FEATURES AND SKILLS

The **main features and skills** of Telemedicine are the following:

- Administration of the patients' identity details, which are registered in the terminal under the form of patient list.
- Administration of medical information and its organization as a total comprising simple examinations.
- Administration of medical information exchange under the form of incidence.
- High quality communication between the users in real time.
- Remote follow up and monitoring of the patient.
- Communication speed in cases of emergency.
- Transfer of medical data from remote centers to specialized doctors in order to get diagnosis.
- File registration of the patient and its immediate use in case of emergency (patient's electronic file).

- Information Systems for automation of medical works (transfer of medical data within or between hospitals).
- Services for information and education through network regarding doctors, patients and citizens.
- Teleservices for consulting purposes and first aid in emergency incidences.

MAIN GOALS OF TELEMEDICINE

Follow the main goals of Telemedicine:¹⁸¹

- Transfer of information, not the patient.
- Better quality and easy access on medical care services.
- Better information on patients.
- Medical expertise, available to everyone regardless of the patient's location.
- Higher efficiency and productivity of medical care services.
- Quicker and safer decisions for treatment, thanks to the transfer of medical images and the easy access to the medical file.

NEEDS FULFILLED BY TELEMEDICINE

Below are listed the needs fulfilled by Telemedicine:¹⁸²

- Remote areas with low-quality rendering of medical services
- Navigation.
- Home treatment.
- Emergency incidences.
- Health tourism units.
- Consulting units to doctors.
- Teletraining.
- Covering of unusual specializations
- Homogenization of medical services.

The basic feature of telemedicine is distance. However, distance may not be too remote. It may connect two parts of the same hospital, two buildings of the same block, two cities, two islands or two continents. The distance may be relatively small but telemedicine may assist by fulfilling its goal without useless time-consuming procedures on behalf of the doctor who provides specialized knowledge and experience.

¹⁸¹ Koutsouris D., (2003), *Telemedicine for Emergency – Laboratory of Biomedical Technology*.

¹⁸² Koutsouris D., (2003), *Telemedicine for Emergency Incidents, Laboratory of Biomedical Technology*

We'd easily conclude that those are supporting technologies and not a new form of medicine.

Nevertheless, it is certain that the adoption of those technologies leads to the need for new models of organization and rendering of medical services. From that point of view, Telemedicine may be considered to be new procedure in the field of medicine or health.

The service of Telemedicine provides a system of administration and distribution of medical information (cardiograms, ultrasounds, CT scans etc) with multiple applications in the fields of diagnosis, treatment and training of doctors. Based on the use of telecommunication and information systems and the conversion of medical information into electronic form, the following main directions of services and applications are signalized:

- Telediagnosis.
- Teletreatment.
- Teletraining.
- Teleconsulting.

POTENTIAL USERS

Knowledge on Telemedicine issues is extremely useful qualification for scientists and the other employees in the health field, given that they allow the practice of medicine upon methods connected to the modern requirements of society, e.g increased mobility of the citizens, demands for equal access on quality services, confrontation of the speedy increase on scientific knowledge and taking advantage of modern technologies for the immediate access on knowledge sources, immediate communication with experts in order to face complex medical problems and lastly, the systematic formation and elaboration of electronic medical files for patients.

At the same time, the telematics technologies contribute efficiently to the solution of the problem of the perpetual medical education and training and the constant and efficient communication and information.

Following the above, Telemedicine programs offer the chance for training of young people, mainly experts, in subject fields related to crucial cognitive objects while they equip them with the required knowledge concerning the modern way of rendering health services, where needed. Those capabilities allow the equal participation in modern activities of rendering of health and care services within the frame of both European Union and global community.

THE ADVANTAGES OF TELEMEDICINE

The use of Telemedicine attributes the following **advantages**:

- Direct communication of doctors located mainly in remote areas for exchange of opinions and treatment of extraordinary circumstances.
- Drastic reduction of the communication time between Hospitals and doctors.
- Minimization of purposeless transfer of patients resulting to cost reduction.

- Update of rendered health services at level of local administration.
- Broad covering of medical cases.
- Treatment of problems in remote and isolated areas and in primary health care units through telematic applications.
- Update of the work environment by the medical staff with the use of modern technology and services based on international models.
- Facilitation and update of the constant doctor training.

POTENTIAL PROBLEMS

However, in Telemedicine applications it is possible to meet the following problems:

- Usually, there is no integrated image for the patient's situation.
- Sometimes, the demand for telediagnosis and tele-expert opinion is not automatically incorporated in the system.
- Telediagnosis is not automatically incorporated in the electronic file of the patient so that it will be available for future reference.

In addition, there is the issue of trust on medical information and security of the entire system. The medical information fall into the restriction of medical confidentiality that should be assured. Moreover, the organization and structure of the system and the registered information should assure the required information for the most secure possible diagnosis by the remote doctor. The above may be handled within the frame of a revised and updated legal-medical environment.

Plus, although the idea of Telemedicine becomes more and more known recently, its applications are restricted. The main factors that contributed to this fact are the following:

- The telecommunicative lines so far do now allow easy and cheap quick transfer of bandwidth. Thus, the applications requiring on-line image transfer or particularly video, are hardly diffused.
- Technology runs quicker than the human habits' change. It takes time for the doctors and the patients to accept innovative technological applications.
- Most applications are formed by financed researching programs and, upon the expiry of their financing, there is not opportunity or interest to keep them on use.
- There are no important national strategies for Telemedicine.

TELEMEDICINE AS SOCIAL SUPPORT

As a country's living standard is improved, the requirements for quality services are increased while the pressures for constant improvement of their quality are enhanced.

«Quality consists of all the features of a product or service required by the users»

The quality of services is always defined by certain qualities that exist or should exist. Provided that the services are properly designed, the most important are the following:

- Their availability and the access on them
- Their acceptance
- Their possibility of use in relation to the expenses resulted
- The possibility for control

So, within the frame of Telemedicine application as important health service, potential problems in the availability of services and the access on them should be treated immediately. However, this is expected to result when the solutions will be given for the total population at the level of telephony.

Until then, the difficulties are enhanced due to the deficiencies in human resources and the weaknesses to welcome and distribute the patients in the hospitals and the Instant Aid Centers, as well as the existence of typical service of telemedical notification (mainly for the Senior Citizens), operating only regarding relative programs of the municipalities throughout the country.

THE GREEK TELEMEDICINE PROGRAM

Telemedicine launched application in Greece in 1994 based on the dispatch of medical data, e.g X rays or ECGs and other information, through common telephone lines from the remote Health Centers of the program in Sismanoglio General Regional Hospital of Athens.

The aim of the Program is the systematic support and update of contents by those healthcare units with the transportation, through Telemedicine systems, of specialized diagnostic and treatment services.

Within the frame of National Health System, the Telemedicine Program operates, financed by the Ministry of Health and Care, which connects small Hospitals, Health Centers and Regional Clinics with the reference center of the program installed in the Regional General Hospital of Attiki «Sismanoglio»¹⁸³ and the General Thorax Diseases Hospital in Athens «I Sotiria».

However, the Telemedicine Unit of the Health National System located in Sismanoglio Hospital of Athens lastly collapsed facing vital problems that result by deficient staffing, faulty technical and informative support and –overall- failure of public hospitals¹⁸⁴.

On the other hand, there is the award of Telemedicine Unit in the Hospital "Sotiria" among public EU organizations who were evaluated within the frame of the competition «e – Inclusion

¹⁸³<http://www.mohaw.gr>

¹⁸⁴ «Kathimerini» newspaper: «Telemedicine collapsed within five years», 29 – 04 – 07, article by Mrs Bouloutza P.

awards 2008»¹⁸⁵. This Unit renders primary care services to senior citizens suffering from chronic diseases without the need to be transferred home.

By examining the general plan, the operation of telemedicine units helps the strengthening of trust towards the local health services, given that the residents get to know the capability of the doctors to transfer the problem in the experts of the hospitals. This fact contributes - at a certain extent - to the interception of internal immigration due to health reasons.

Furthermore, it may also contribute to the national, tourist policy, by giving the chance to the vulnerable tourist groups to know the ability of instant service of an eventual problem through telemedicine in the place of holiday¹⁸⁶.

It is not difficult to perceive the respective difficulties faced by the remote and incorporated hospitals or Health Centers in Telemedicine Programs within continental and island Greek territory. The support, the collaboration and the mutual assistance are automatically refuted when there is nobody on the side of the doctor "on the other side of the line" for all potentials. All the above problems will be perpetually enhanced with the following factors:

- Deficient public financing. The incorporation of Telemedicine Program into financing programs by EU would certainly assure viability and growth.
- Faulty training. The individuals that constitute the support group of the Program either are small in number in relation to the requirements or deemed to be insufficient at the level of knowledge and skills.
- No motives. The possibility for constant training does not seem even a perspective due to multiple and insuperable functional hindrances.

Provided telemedicine will be treated and offered as "public good" and not as additional parameter in the competition field, the nursing institutes will be able to cover current needs, as follows:

- The demographic changes
- The quality of services
- The equity in access
- The improvement of clinic result
- The research and technology
- The inspection of expenses in health services
- The business opportunities.

STRATEGIC ANALYSIS OF THE ENVIRONMENT

¹⁸⁵ *Kathimerini* newspaper: «Telemedicine Award in Sotiria – from Europe», 15 – 11 – 08, article by Mrs Bouloutza P.

¹⁸⁶ «*Kathimerini*» newspaper: «Telemedicine collapsed within five years», 29 – 04 – 07, article by Mrs Bouloutza P.

The work attempts to reach -at least within the frame of theories – the hospital institutes with applications and technologies, by examining how the information, that is the strategic advantage to be produced by this fermentation, influences the moves and the decisions by the Institutes within the frame of rendered services. In fact, we are looking forward to reveal the need of existence of telemedicine systems in modern hospital institutes.

SECTOR DETAILS

Recently, the hospital field in Northern Greece is marked by new classifications due to takeovers and mergers between societies of three wider activities in fields (general clinic, obstetric and gynecological clinics, diagnostic centers). The result of this tendency is the domination of very strong business groups for rendering of medical services which offer full range of services for treatment and diagnosis.

The competition lately is extremely intense between the private health units, which is concisely focused on points like the renewal of medical-technological equipment, the range, the quality and the speed of rendered services, the network and the collaboration with insurance organizations.

Recently, we notice important changes on the operation of private health sector in various European Union countries, which are combined with demographic factors, the reduction of state interventionism and the technology evolution. In some EU countries, the possession of private treatment centers is gradually transmitted by groups of doctors to great financial groups or insurance organizations, who, in turn, introduce modern promotion methods for sales guided by the qualitative update of the rendered services.¹⁸⁷

CORPORATE STRATEGY

The business strategies in the health field began to operate but mainly exist in Greece the last ten years, where the rendering of medical services by private clinics was extremely increased.

The release of private health and its following increase forced the involved persons to proceed to the detection and adoption of strategy in order to survive in the different new landscape and manage to strengthen that way their position by formulating the frames of this developing market. In particular, the efficient administration and operation of various clinics (which operate as separate companies) by the abovementioned groups, constitutes a principal reason to «build» common and efficient strategy, by following always the motto «although nobody can claim that strategy assures success, it surely helps at its achievement».¹⁸⁸

STRATEGIC COMPETITIVENESS

The Theory of Resources and Abilities explains how the business resources (material and immaterial) in combination with the skills (marginal and principal) constitute potential sources of comparative advantage. The selection and respect of strategy assures its durability in time¹⁸⁹,

¹⁸⁷ ICAP, (2006), *Sectoral Study: Private Health Services*, page 3

¹⁸⁸ Papadakis V., (2002), *Business Strategy: Greek and International Experience*, page 31

¹⁸⁹ Malavakis Ch., (2007), *Notes on the Course Strategic Management – ICBS*.

which requires also the operation, the contribution and the collaboration of multiple powers of the business or the organization.¹⁹⁰

- Within the frame of competition between the private hospitals, the powers and the resources consist on the plants and the medical-technological equipment of high technology (material resources),
- The existence of famous doctors, trained nursing and administrative staff (human resources),
- The existence of competitive nursing packs that is supported by integrated systems of administrative and financial administration (system resources).
- Lastly, we recognize the «reputation» and the «good will» as resources with great value (immaterial resources).

The business resources are not always able to offer competitive advantage and success. The possession of a unique resource does not automatically lead to success. It is certain that a business may fail provided it has not the skills that allow it to develop and win-win benefit of this advantage.

Consequently, it is not enough for a business to have resources. It should undoubtedly combine the precious resources and form skills resulting in fact by the proper combination and the integration of a group of resources.

This means that potential perspectives for the following result by the installation of telemedicine system in nursing institute:

- Possibility to schedule the surgeries.
- Spare time in the occupation of surgery rooms.
- Time and money profits due to delays.
- Transaction of more interventions in less time.
- Less hospitalization time – spare of clinics – more patients' admittance – increase of completeness and incomes.

In fact, the first «customer» who benefits from telemedicine advantages is the surgeon - doctor, who wants to benefit as much as possible from such quality, by forming such work surrounding. Secondly, the patient has a clearer image about the term and the quality of hospitalization and treatment. In any case, those factors reinforce the prestige and the value of a nursing institute.

To conclude, those factors should not be treated segmentally but as complementary units that influence each other positively or negatively. In addition, we should take into account that changes occur with time. This may be due to the changing environment or the occurrence of

¹⁹⁰ Siomkos G., (2004), *Strategic Marketing*, page 122

competitors. The result may be the failure of a strategic factor of success and its replacement by another.¹⁹¹

COMPETITIVE ADVANTAGE

Competitive advantage is constituted by all business means or acts to assure predominance towards the competitors and simultaneous important profits. The competitive advantages result by the availability and administration of resources as well as the abilities of the business administration and staff¹⁹². Provided a “matching” is achieved between the internal business surrounding and its strategic design, then we will be able to say that the benefit of advantage acquisition is achieved.¹⁹³

Nevertheless, the existence of business resources is not enough to form competitive advantage. The competitive advantage is formed by combinations of resources and their proper administration in a way to form such business skills as to support and maintain competitive advantages¹⁹⁴.

The provision and installation of high-technology machines obviously assure priority of the hospital against competition. However, the faulty or insufficient use automatically cancels it. Such a result is due to reasons like lack of user's training (liability of the supplier and the administration that should assure excellent training), failure to take advantage of equipment capabilities, deficient or erroneous diagnosis, bad reputation of the hospital, weakness for investment amortization.

According to the theory of sustainable competitive advantage based on resources [Oliver, 1997],¹⁹⁵ the competitive advantage is the result of distinctive, rational, administrative options, optional accumulation and investment of resources, strategic factors of the field and the imperfection factors of the market.

METHODOLOGY, AIM & GOALS OF THE RESEARCH

The work is based on the empirical observation that, in the frame of great investments in health field and the assurance of competitive advantage, we notice recently a wider adoption of applications of telemedicine technology.

This research aims firstly at the investigation of both the existence and perception of usefulness of telemedicine application. Secondly -and provided the telemedicine application is stated- it reveals the reasons of its installation, based on which expectations and it later mentions whether the expectations are met. The goals consist on the following:

- Revision and presentation of private and public hospital field (in the area of Thessaloniki)

¹⁹¹ Terzidis K., (2004), *Management – Strategic Approach*, Editions Syngroni Ekpaideftiki, page. 99

¹⁹² Kazazis N., (2004), *Efficient Marketing*, page. 143

¹⁹³ *Understanding Competitive Advantage: The Importance of Strategic Congruence and Integrated Control* - Springer Berlin Heidelberg 2005.

¹⁹⁴ Kazazis N., (2004), *Efficient Marketing*, page. 144

¹⁹⁵ Siomkos G., (2004), *Strategic Marketing*, page 122

- Registration of the range of telemedicine application in the Greek hospital system
- Research, registration and analysis of those reasons for which the telemedicine application could be considered to be competitive advantage.
- Research of all factors that contribute to the recognition and maintenance of the competitive advantage.

The research was implemented under two points of view: the first regarding the examination and finding of strategic advantage through the theoretical model's filter while the second aiming at the study and setting of parameters that lead to the maintenance of this advantage.

RESEARCH RESULTS

Within the frame of the research, personal interviews were implemented with the directors and administrators of the biggest hospital units (private and public) in the area of Thessaloniki. The way of approach was a Non-Structured Personal Interview that assured:

- A «real» and reliable image of the hospital field
- The elimination of distance that separates theories from their application in the market field
- The collection of interior data by contributing to the reliability of the research
- The initially informal measurement of treatment by the heads of the hospital units in the perspective to apply Telemedicine.

From the answers of the sample, it results that there is contact and knowledge of Medical Informatics' applications, like Telemedicine. The advantages are recognized and known even if not applied in the administered hospital. Despite all these, where applicable (e.g dispatch of cardiograms and X rays through Internet), the usefulness and value are confirmed regarding speed and spare on the treatment of a case with diagnosis and service of remote patients.

Equally important advantage of the Medical Information resulting by the answers of the sample, is the improvement of rendered medical services of hospital institutes. In that way, less medical and nursing staff is employed or it is employed for less time. Therefore, the institutes that use previous technology, improve their operation and the services they render in general. More important presumption is the answers of the interviewees who keep on having this opinion because they consider that, with the use of Medical Informatics, the waiting time of patients and the cost are both reduced, by contributing to the positive operation of the institutes, the improvement of their services and the acquisition of important advantages towards the competition.

In any case, although no new detail or conclusion arose, the answers demonstrate that the new generations of administrative persons have wider opinion of medical and technological applications and that, in some hospitals, Telemedicine applications (regardless of the kind and the degree of expression) constitute daily medical practice. This occurs mainly in the private sector since public hospitals (in the area of our sample) have no activity to show.

And the reasons which led the percentage of our sample to the adoption of Telemedicine relate to the reduction of service cost, the improvement of rendered services and the increase of speed of patients' service.

On the other hand, the higher percentage of our sample believes that Telemedicine application in the hospital institute where they activate, did not attribute the expected results and this is due to the fact that there is no required staff familiarization and there is lack of appropriate structures and infrastructures which would render its application more efficient. This weakness consists on the impression that Telemedicine applications reach difficult heights (like the required equipment) while the last rampart of the arguments is the reserve for the staff ability to meet such an investment.

Lastly, let's not omit to mention that our sample, despite the realized expectations at a certain extent, expects additional profits and results at operational and financial level. Nevertheless, the decision for future or already existing installation of telemedicine system is based on those expectations.

Lastly, the answers of the sample state that Telemedicine application is also realized for purposes of reputation and prestige of each hospital institute without constituting dominant priority.

After having investigated how the interviewees perceive Telemedicine and its effects, we wanted to examine which are the changes to be brought in the internal structure and the operation of hospital institutes.

To conclude, we mention that most people believe that with the use of the proper, medically evaluated, technology, the rate of success for interventions is increased, the waiting time is reduced, the works are automated and a collaboration frame is formed between the specialized staff and universities and clinics.

CONCLUSIONS

As first and impulsive conclusion we could state the fact that Telemedicine applications approach rapidly the daily routine of the medical acts. It is now reality for global and also Greek medical data because nowadays its applications are more often used. The percentage 75% of our research's sample has adopted at a certain extent and form an application of Telemedicine.

Telemedicine, where and when applicable in the hospitals, constitutes a simplified form in relation to the respective applications of wider extent and higher technology of Medical Informatics mainly destined for military sector. Besides, Telemedicine applications in the surgical field give a sidelong glance towards robotic surgery that is already presented as trade article (Da Vinci system).

Regarding hospital institutes in the area of Thessaloniki, the basic conclusion resulting by the research is that there are Telemedicine applications in the diagnostic and surgical field, mainly in the private sector while the public hospitals are still delayed in this field.

The truth is that none of the hospitals that apply Telemedicine use it as spearhead in Marketing. However, the use of Telemedicine applications is made in order to acquire

reputation and prestige, by aiming at the update of the equipment, the rendered services and in long-term the cognitive level of their nursing staff.

The as above analysis brings us in front of an assured expectation for update of services; the update of the training level for medical and nursing staff constitutes first priority for each interviewee.

This may be due to the fact that such an effect is considered to be given (as natural sequence) and gravity is given to the update of rendering of services and the reputation/prestige of hospitals.

In the latter two fields, the expectations focus on the use of Telemedicine in the surgical field with parallel profits on the scientific documentation, the speed on interventions, the scientific preciseness and efficiency.

It is certain that the good intentions are in excess regarding the installation of Telemedicine system. At diagnostic or surgical level, the administrations and the directions of clinics are in fact willing to work in an environment that offers safety and quality guarantee. The biggest hindrance so far (financial cost) is overcome nowadays with structured financial-technical studies, increased financial capabilities of the hospitals and mainly the change of mentality by persons who constitute the administration and may recognize the profits and pros of such an investment.

Our research has revealed that the interviewees know and perceive the advantages of Telemedicine, regardless of the application on their own hospital or not. The determinant of "human resources" will reveal or collapse an application that can make the difference, one way or another.

The successful conjugation is purely matter of administration of resources and priorities. This means that, if we assume that the use of high technology constitutes default panacea by undermining the human factor, then the failure is given. On the contrary, if we use this technology for maximum performance through the update of the users' cognitive object, then the competitive advantage will be achieved and new data may be formed in the structure and the operation of parts using Telemedicine, like :

- Efficient way of working (definition of procedures, surgery programming)
- Quality assurance (functionality – ergonomics of units, high level of equipment),
- In general, it assures the users who are used to such situation and it would be difficult to restore or function without it

In our opinion, the human-centered approach in the dilemma "human or machines" is an inevitable and preferable approach. Although in this case we move on the edges of the limits of philosophy, the catalyst for the revelation, application and efficiency of any technology form was and remains the human and its moral-mental qualities.

Concerning its technological skills, their growth was always complying with the development of the technology itself, based on the deep knowledge and specialization. Those two elements

(knowledge and specialization) may be helping the Telemedicine users to take ultimate advantage of the system abilities and himself to acquire new and develop old knowledge leading to its personal and professional improvement and progress.

Telemedicine is an advanced technology solution in the universal problem of access on healthcare since, thanks to its use, the geographical isolation is not further obstacle on the human basic needs for fast and high level medical care and attributes requirements to the institutes for strong advantages.

SUGGESTIONS

For the moment, the development of Telemedicine is directly related to the development of broadband and use of its applications on the operation and networking of hospital institutes.

In the public sector, the installation and extension of the network "Syzeffix" forms stable infrastructures for the update of telecommunicative infrastructure of public sector, by offering thus an access network and orientation for the State organizations, wishing to meet the needs for their communication with telephony (telephonic communication between the organizations), given (communication of Computers – Internet) and video (teleconference – teletraining). In addition, the private sector, by using the applications of broadband for its own internal communications (telephony and internet) forms its own separate network.

Given this fact (use with differentiations at the level, the degree and the kind of applications) and from the:

- Installation of a modern telematic network for use by health units with perspectives of extension.
- Development of integrated informatic system for primary units.
- Installation and use of common software of electronic medical files, especially in primary health care
- Access from all network points in medical and information databases (Greek and Foreign).
- Use of modern telecommunicative equipment (following the international standards) for teleconferences and parallel data transfer.
- Use of network for perpetual training of medical and nursing staff in remote areas.
- Quality administration and assurance.
- Application of international standards and protocols (HL7, DICOM, ISO-EN etc).

In order to materialize the National Telemedicine Network, resources and material-technical infrastructure are required. For this purpose, the implementation will proceed gradually. At first phase, the National Center of Telemedical Services could be established and at second phase, telemedical works will be executed at national scale.

The establishment of an institution (or a Committee) that will assume the organization and administration of such attempt could be installed in university hospital or university institute or other scientific organization and there will be collaboration of doctors or electric engineers and

computer engineers with specialization in Biomedical Technology, Telecommunications and Informatics.

Therefore, the proper use and benefits from Telemedicine is not only issue for users and administrators. They will have sufficient technical knowledge, so that they:

- Evaluate the technical features of Telemedicine systems
- Recognize their abilities and how they can maximize
- Carry out the installation
- Assume the maintenance and update of the equipment

From the point of view of the medical and nursing staff, the use of Telemedicine could:

- Produce stimuli and conditions for lifelong learning.
- Lead to development of intrahospital seminars and experiences
- Bring the adoption of new data in working conditions
- Give birth to the use of new protocols and requirements in medical research.

All these should take place in an innovative organization and culture environment of telemedical services, that will lifelong inform and train all involved scientists/users, aiming ultimately to the change of mentality and «culture» in the working area.

Perhaps in a future ideal world of hospital rendering of services could belong the operation of an Intrahospital Metropolitan Network, where will also belong and collaborate the hospitals of public and private sector, aiming at the promotion of Health as social good, the prevention and treatment of emergency incidences, the immediate access in crucial health details of the patient (electronic hospital file), the introduction of Telemedicine dimension in medical practice, as well as its compliance with the European legislation and mainly EU Directive 95/46 (regarding personal data protection).

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NATURE, ELEMENTS AND PROCESS OF CUSTOMER ORIENTATION: EVIDENCES FROM SERVICE FRONT LINE

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Purpose – This study is an attempt to understand how customer orientation happens in an organization particularly with reference to the role of front line.

Design/methodology/approach- Critical Incident Technique was employed to collect stories of customer oriented responses from the front end managers of twenty interactive services organizations. The collected stories were analyzed and interpreted to capture the nature, elements and process of front end initiated customer oriented response.

Finding- The responses were found to be systemic, localized and benefit driven in nature. Managerial initiative, system support and frontline participation were the elements which contributed to customer orientation. The process involved followed a generic decision making model with sequential steps of awareness, authentication, alternative generation, evaluation, response design, trial implementation, full scale implementation, and impact assessment and communication.

Research limitations/implications – Further research work should focus on implications for human resource development in the front end for an attitudinal change through education and training. This should be in the form of developing a need for assigning highest priority for the customer need.

Originality/value – This paper provides a detailed study of the need for nurturing the leadership and initiative of the front line manager. Further, the current study should enlighten the top management of service organization that many customer oriented response initiation and implementation can occur at the grass root level within the organization rather than out of the vision of the top management.

Keywords: Customer Orientation, Service Delivery, Response Implementation

INTRODUCTION

Marketing philosophy entails that customer oriented organizations are better positioned to achieve long term business success than the ones that are not (Deshpande, Farely and Webster 1993; Kotler 2000). Customer orientation has been considered as an integral element of Market Orientation (Deng and Dart 1994) leading to superior firm performance in terms of profitability (Narver and Slater 1990), employee commitment and esprit de corps (Jaworsky and Kohli 1990). Given this significance of customer orientation, researchers in marketing have profusely studied factors contributing to superior customer orientation as well as varying implications of customer orientation across different organizational contexts (Chang and Lin 2008, Harris and Strong 2004, Ceyhern and Dursun 2007, Sax and Weitz 1982).

THEORETICAL BACKGROUND

Researchers in the past have suggested the study of market orientation in a disaggregated manner (Noble, Sinha and Kumar 2002), particularly differentiating customer orientation and competitor orientation as separate constructs since their drivers are different (Homburg, Grozdanovic and Klarmann 2007). Customer orientation, particularly, has been treated as a culture driven, over all organizational orientation (du Gay and Salaman 1992) as well as individual employee orientation (Saxe and Weitz 1982). Researchers have studied influence of individual characteristics such as personality traits on customer orientation of service workers (Brown et al. 2002, Liu and Chen 2006). However, researchers have not given sufficient attention to the role of front end service unit in designing and delivering customer oriented response and especially to *how* such responses happen.

The boundary spanning employees could play a key role in making the firm customer oriented. The role includes understanding, filtering and interpreting information and resources to and from the service organization and its customers (Zeithaml, V. A. and Bitner M. J. 2000). They also participate in designing and more so, in implementing customer oriented responses (Heskett, Jones, Loveman, Sasser Jr and Schesinger 1994). These customer oriented responses could be on the front end employees' own initiative or by virtue of the front end employee participating actively in organizations' top management driven customer orientation (Carr and Lopez 2007). There are multiple drivers for customer oriented behavior. While individual initiated customer oriented behavior by front end employee is driven by personality factors like openness and agreeableness (Periatt, Chakraborty and Lemay 2007, Liu and Chen 2006) a more widespread- organization wide- customer oriented behavior is impacted by a market oriented organizational culture (Narver and Slater 1990). For example employee empowerment was identified to be positively impacting customer orientation (Bowen and Lawler 1992; Peccei and Rosenthal 2001). Similarly, education and training, involvement and contribution, and reward structure (Iris Mohr-Jackson 1991) were also found to be driving customer oriented behavior in service organizations at the front end.

Besides explaining key drivers of customer oriented behavior, existing literature deals in implications of customer orientation as well. Customer orientation of front end service employees was found to be positively influencing firm performance (Keilor, Parker and Pettijohn 2000) service quality (Carol, Carol and Rachel 2003) job satisfaction, commitment and organizational citizenship behavior (Donavan, Brown and Mowen 2004).

The predominant measure for service quality was proposed by Parasuraman, Zeithaml and Berry (1988) in the form of SERVQUAL. Superior service quality leads to customer satisfaction and loyalty which in turn results in superior performance (Parasuraman et al. 1985). Service quality is achieved through matching or exceeding customer expectations (Zeithaml, Bitner and Gremler 2006). This would involve understanding, designing and delivering service promises in tune with customer expectations. Thus customer oriented behavior becomes a prerequisite of superior service quality and resultant customer satisfaction. Therefore, an understanding of the nature, elements and process of customer oriented behavior could facilitate front line employees as well as service organizations in improving on their customer orientation.

As discussed earlier, past research has largely concentrated on the key drivers and consequences of a customer oriented behavior. However, effort has not been made in identifying

the nature, elements and processes of customer oriented behavior. An adequate understanding of these would demand a study into the “how” of customer oriented behavior. Therefore, the current research attempts to explore the nature, elements and process of customer oriented behavior in interactive services and the role of front end in implementing the customer oriented response.

THE CONTEXT

Service, because of its intangible and inseparable nature, can only be delivered through customer-provider interaction. In almost all cases the provider is represented by service delivery personnel or service facility. Hence a customer oriented response in services has to be implemented through these boundary spanning elements. Service customers bring in variable demands and expect on the spot adaptations in services delivered. Service personnel, being organic in nature, are in a better position to understand the specific need and design and implement a response than an inorganic facility. Considering that the front end employees play a critical role in interactive services in becoming customer oriented, the researchers studied the characteristics and the process of customer orientation at the boundary spanning unit in interactive services. Hence, this research is carried out in the context of the front line unit of interactive services represented by the front line manager.

METHODOLOGY

Yin (1994) suggests that in order to answer a research question as to “how” a phenomenon occurs, an exploratory, qualitative and case based research strategy shall be adopted. As the researchers were primarily interested in the process of customer oriented action, they adopted an exploratory, critical incident based approach. A critical incident is described as one that makes a significant contribution either positively or negatively to an activity or phenomenon (Bitner, Boom and Tetreault 1990, Grove and Fisk 1997 and Chell 1998). Studies in the past in similar areas like market orientation have heavily relied on narrations or oral histories by protagonists in initiating and implementing such activities (Gerhart 2006). In the current study, the researchers identified 20 customer oriented incidents. These incidents were particularly drawn from customer interacting levels of medium or large service organizations. The researchers chose a chief protagonist in these specific customer oriented incident to narrate the story. Further, as the method demands, the incidents were qualified by asking the respondents to report only those which they perceived to be making a significant contribution to the organization and which happened in the recent past. By qualifying these incidents, the researchers ensured that high impact customer oriented activities at the front end alone got attention and the scope of the study was limited to impactful incidents.

Further the definition of CIT entails two aspects to be taken care of at the time of collection of self report of the protagonist. One is the incident in itself and the second is the phenomenon or the theme which it contributes to. In the case of the present study, the incidents were customer oriented responses and the theme was customer orientation in itself which is constituted by customer oriented information collection and processing and also the response. Hence the guidelines for interviews contained items about the response as well as the information about the customer which led to the response.

Trained investigators collected oral stories from front end managers on a customer oriented response (incident in this case) that the respondents themselves considered important. The organizations were selected by using convenience sampling method. The respondents were facilitated to be natural and were encouraged to narrate the full spectrum of the incident with very minimal interference from the investigators in the form guiding. The spectrum involved what the incident was, why it occurred, who all participated, and how the entire incident occurred. The first transcript was prepared by the investigators with verbatim reproduction of narration wherever possible. The researchers analyzed the transcripts one by one whereby every next incident contributed to insights and relationships identified in the previous cases or revealed new insights or relationships.

In the analysis the researchers used a general frame work with three dimensions namely nature, elements and process of customer orientation. This frame work was used keeping in mind the research objective of exploring, identifying and describing the nature, elements and processes involved in customer oriented response in the service front end. Insights drawn from the information gathered were formed into data categories the aggregate of which gave a comprehensive understanding of the phenomenon under study. Each data category was labeled and a collection of categories contributed to the three dimensions of the frame work.

DATA ANALYSIS

By a close examination of the transcripts derived from the reported critical incidents, the researchers arrived at the nature (what), elements (which) and processes (how) of front end involved customer oriented activity. The insights arrived at from the analysis of the incidents are described below.

Nature of Customer Oriented Action:

Customer oriented activity in the front end was by and large found to be systemic in nature. By systemic we mean that a response was designed and implemented keeping all such future occurrences in mind without having to address on a case to case basis. Homburg, Grozdanovic and Klarmann (2007) distinguish between cognitive and affective organizational systems that drive customer and competitor orientation. While cognitive systems refer to the extent of information processing within an organization the affective systems refer to the existence of values and norms to which the members are emotionally attached. They found that while affective organizational system is more important in driving responsiveness to customers, cognitive organizational system is more important in driving responsiveness to competitors. Similarly, we found that along with the implementation of a newly designed customer oriented response, supporting policies, procedures, guidelines and rules were also laid down by the organizations or units with an intention to drive similar customer oriented response in future. E-statement for ICICI credit card for travelling customers, Travel Insurance Policy for a new age group at Bajaj, Redefining responsibilities of staff in Reservations Office (CRO) at Landscape Resort, Introduction of express counter and separation of cash and card counters at Big Bazaar, Annual Maintenance Scheme at Bajaj service station, Express Delivery in case of short time for servicing and Night Shift during high demand by Bajaj Service Station were all examples for the same. All of the above responses were destined to be continuing for future with associated rules

and procedures for supporting the implementation. After restructuring the CRO at Landscape Resort, the manager observed:

“.....the work responsibilities were restructured; all the six CRO officers were made responsible for attending calls and the new policy was explained through a workshop organized”.

Implementation of these systems was in such a way that it was clearly communicated to the customers as well as to front end employees. For example, the “new” e-statement facility provided by ICICI received a prominent position in front page of the company website and cash and card payment queue labels appeared prominently above Big Bazaar billing counters. We conclude from these observations that while disparate customer oriented action might happen at the individual employee level due to personality traits and characteristics of the employee, high impact and pervasive customer oriented responses, that in most cases become a regular feature in future, draw support from systems and procedures for their continued implementation.

Benefit orientation was another characteristic of customer oriented activity. The responses initiated and designed by the front end manager were evaluated on cost and revenue bases. In most cases cost and revenue implications of customer oriented actions were evaluated with the involvement of higher authorities. The facilitation of revenue collection without much of cost was one among the reasons for introducing e-statement facility in ICICI credit card division. Branch manager of ICICI observed:

“the senior management and all of us concerned realized the importance of such feedback that was crucial in receiving payments....giving an opportunity to augment service offering to enhance customer satisfaction”.

Similarly, Revenue loss due to customers leaving the store even after picking the item because of long queues was controlled by introducing a billing counter at the drug store of the super market that did not demand corresponding additional cost. Bajaj Allianz did test marketing and projected the financial feasibility of introducing newer policy for aged customers while Landscape Resort considered CRO restructuring due to business loss as booking agents prioritized other hotels.

One of the major characteristics of customer oriented responses was that the implementation of these responses demanded higher levels of localization. The role of front end manager, as chief protagonist for a customer oriented change, facilitated the implementation of locally relevant responses. Local adaptations were made both in the service design and delivery as well as in marketing communication. Because domestic business customers coming to Goa carried some exotic images of Goa much like the tourist customers they expected an in-house bar at Ginger, a unit of the no-frills hotel chain. The Goa branch manager of Ginger Hotels had to get a bar sanctioned against Ginger’s organizational policy. Similarly, customer response at Fabindia’s Panaji unit demanded more localized promotional strategies as against Fabindia’s policy that resulted in superior business. e.g., Billboard on top of Inox multiplex and advertisement in local newspapers.

Customer oriented responses, in many cases, also required support and involvement of staff at the front end besides the manager. Therefore, as a practice, the front end managers included

the immediate staff as early as response design stage through implementation and follow up. For example, the front line manager at Bajaj service station, Mr. Subhash, consulted and involved the head mechanic and others under him while deciding on night shifts as well as delivery based on service time requirement. He remarked:

“...since implementation involves the rest of the mechanics, I consult the head mechanic from the beginning.....also orienting and training people if needed”.

Elements of Customer Oriented Action:

The elements involved in the customer oriented response were not many. We found three main elements namely managerial initiative and leadership, front end implementers and system support.

In all the responses a front end manager took lead in selecting, pursuing, designing and implementing the customer oriented response. For example, in the introduction of single customer service number at Cidade de Goa, restructuring CRO at Landscape, introduction of bar in Ginger's Goa property, installation of separate billing counters at Big Bazaar and introduction of e-statement facility at the ICICI credit card division were all at the initiative and persistent pursuit of front end managers. The service manager at Cidade de Goa states

“I carried out a survey on other hotels as to how they were tackling this service issue, took the results to the CEO.....the project took about one year from conceptualization to implementation that involved training employees, adding infrastructure and new recruitments”.

In most cases implementation of customer oriented response required participation of front end employees. The elicitation of participation took the forms of consultation in designing response (the involvement of chief mechanic in Bajaj service station), training for implementation (training of CRO staff at Landscape, training of counter sales executives in Bharne Creations) as well as assignment of roles in the implementation (all the incidents except the case of e-statement of ICICI for credit card customers).

In many cases, introduction of customer oriented response benefitted from existing organizational systems and practices as well as technological systems. Existence of rules, procedures, and roles were examples of organizational systems gearing up to support customer oriented response as in the case of ideation lab of ICICI bank, and feedback department of Café Coffee Day. These findings were found to be similar to past research findings that job design and value based training and the resultant employee empowerment lead to customer oriented behavior (Peccei and Rosenthal 2001). The outlet manager at CCD narrates the role of feedback department:

“The outlets forward all feedback slips to Bangalore where they are carefully scrutinized.....suggestions regarding eatables are passed on to food and beverages department, those regarding décor and service quality are passed on to marketing department”.

On the other hand, introduction of software and hardware were examples of technology systems supporting implementation (online access to credit card statement in ICICI bank, new telecom infrastructure at Cidade de Goa, call forward facility at Landscape Resort).

Process of Customer Oriented Action:

The first step in most cases was the front end service unit, specifically the manager, becoming aware of the need for a customer oriented action. This awareness was not a proactive discovery. Rather, a customer complaint, informal sharing of information by a customer or a channel member, formal reporting system and feedback mechanism brought such a need to the notice of the front end manager. For example, the cluster branch manager of ICICI credit cards received many customer complaints like the following one:

“I have made my credit card payment on the basis of SMS received and I have actually not received the hard copy of detailed statement by mail. In case I am travelling abroad, I am unable to even receive this SMS and hence unable to access any credit card payment service.”

However, this awareness was followed by detailed information collection for authentication which can be considered proactive. For example, the CRO manager at Landscape did the following steps for authentication; a) paid personal visits to major travel agents and sought their opinion and facts, b) made live booking calls from agents office, c) made 50 dummy calls over three weeks and tabulated the results.

Once the authentication revealed need for an action, further steps followed in the form of assessing possible alternative responses including financial implication. After selecting the optimum alternative, a detailed response design followed. This detailed response design, many a times, required participation of other members responsible for contributing to the design of the responses. These responses were then implemented on a trial basis. Along with the trial implementation, participating front line employees were trained to adapt to the changed system and areas for closer control and monitoring were identified. On successful lessons from trial implementation the customer oriented response was implemented as an organizational system throughout the organization. In certain cases, regular collection of information on the impact of the customer oriented response was gathered and communicated to the frontline response implementers with the purpose of motivating them.

While following the steps in generic decision making, the process also displayed a few specific features. The generic managerial decision making process involves the five steps of: a) problem identification b) developing alternative courses of action c) Evaluating and selecting alternatives d) Implementing alternatives and e) monitoring consequences of action (Koontz 2000). Figure 1 depicts the typical process involved in a customer oriented action that the front end manager considered important. The means of becoming aware of the issue, authentication of the issue, front end employee participation in designing response and impact assessment were salient to the process.

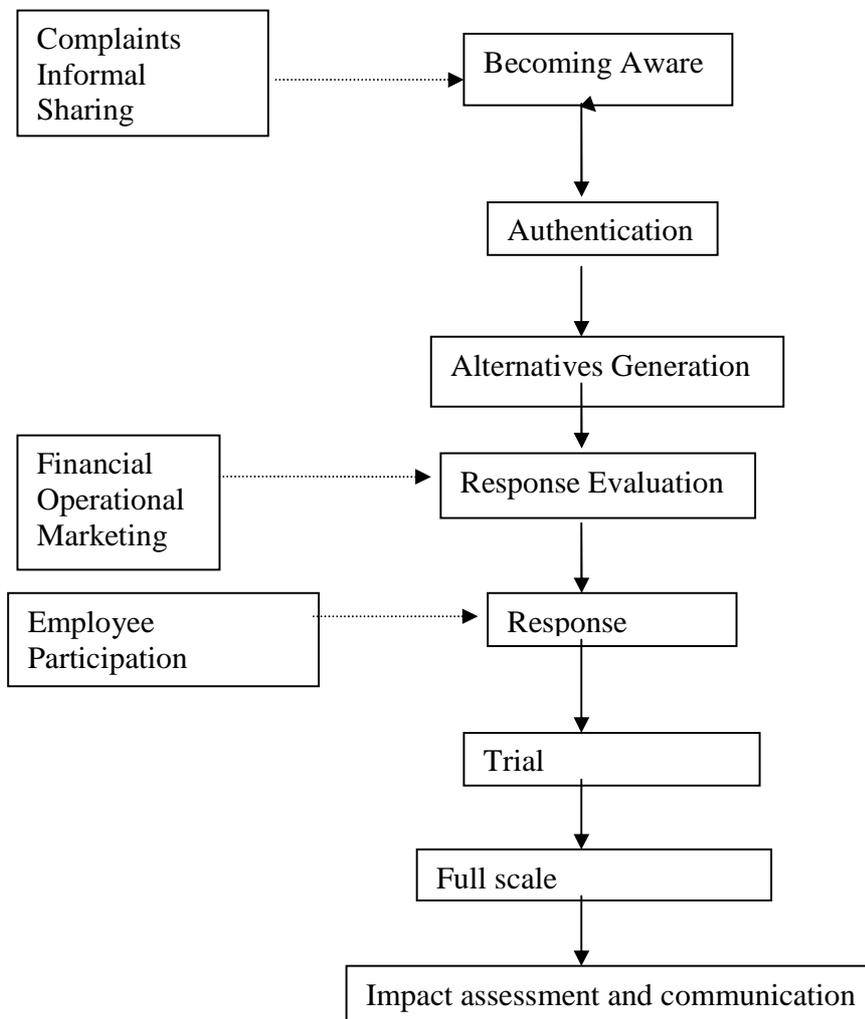


Figure 1: Process of Customer Oriented Action at the Service Front End

MANAGERIAL IMPLICATIONS

Given the systemic nature of responses and the need for system support for implementation, the onus is placed on the managers at higher levels to institutionalize the practices by designing or facilitating the design of proper systems in the form of policies, procedures, guidelines and rules. Again the reactive nature of customer oriented behavior stresses the need for systems and procedures which enable and facilitate the customers to express their needs and difficulties. Customer surveys, suggestion boxes and toll free numbers are some examples. The initiative, persuasiveness and persistence of the front line manager from becoming aware to impact

assessment and communication has been found to be extremely important in the entire process. This has implication for front end manager selection, empowerment and facilitation.

Further the findings of the study have implications for human resource development in the front end for an attitudinal change through education and training. This should be in the form of developing a need for assigning highest priority for the customer need. The effort will be particularly relevant in the implementation of the customer oriented response through the front end. The need for nurturing the leadership and initiative of the front line manager is also evident from the research. Further, the findings of the current study should enlighten the top management of service organization that many customer oriented response initiation and implementation can occur at the grass root level within the organization rather than out of the vision of the top management. This calls for a change in perspective from a top down customer orientation to a bottom up customer orientation.

LIMITATIONS

The research is based only on 20 incidents. Therefore, for many of the conclusions drawn a minimum number of at least five incidents (Zaltman) contributing to each insight were not available. Hence the contribution of this research largely remains generation of themes and insights relating to nature, elements and process of customer oriented responses rather than validation of the same.

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JOB SATISFACTION IN CYPRUS

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Purpose – The aim of this paper is to present the results of a study that investigated individuals' levels of job satisfaction in selected industries in Cyprus and to determine whether there were any statistically significant differences between males and females.

Design/methodology/approach – In this cross-sectional study, the Minnesota Satisfaction Questionnaire (MSQ) short-form was used to measure job satisfaction levels. A total of 643 employees from a range of industries that included banking, education, electricity, telecommunications, drainage and sewerage, and water supply participated in this survey. Participants' quantitative responses were analyzed using SPSS.

Findings – The results showed that the majority of survey subjects reported that overall they were satisfied with their job, and that they experienced slightly higher intrinsic (compared to extrinsic) job satisfaction levels. No statistically significant difference was found between the mean job satisfaction levels of males and females.

Research limitations/implications – The validity of the findings depends in part on the extent to which respondents provided answers that were truly indicative of their attitudes. A potential limitation is that subjects provided answers that were socially desirable or that contributed to the avoidance of cognitive dissonance. Additionally, respondents may have differed from non-respondents limiting the generalizability of the results. Future research could investigate job satisfaction levels in other industries in Cyprus and assess the relationship between job satisfaction and behavioural outcomes such as performance and turnover.

Originality/value – The results of this study can be compared to those of the International Social Survey Program (ISSP) published in 1997 to identify job satisfaction trends in Cyprus. Human Resource managers in the subject industries may take into consideration the findings of this study to determine whether there is need to take measures to improve certain job facet levels of job satisfaction.

Keywords: Job satisfaction, Human Resource Management, Cyprus

Article type: Research paper

INTRODUCTION

In today's increasingly competitive global market, firms need to take all necessary steps to retain and increase their customers in order to remain profitable. This requires the efficient production and provision of quality products and services which in turn partly depends on having experienced, motivated and productive employees. The evidence suggests that individuals who are satisfied with their jobs are more likely to exhibit desirable behaviors that enhance the efficiency and performance of the organizations that they work for.

Job satisfaction is an important work attitude that has been extensively studied in industrial and organizational psychology (Davis, 2006; Spector, 1997). Job satisfaction is viewed as an important attitude because of its perceived influence on individuals' work productivity, organizational commitment, organizational citizenship behavior, actual turnover, as well as customer satisfaction and organizational performance. Although research has yielded mix

results with effect sizes varying across studies, overall the empirical findings suggest that the interest in job satisfaction is merited (Kennedy, 2005; Robbins and Judge, 2009; Sousa-Poza and Sousa-Poza, 2007).

Evidence obtained for other countries suggests that job satisfaction is related to the aforementioned attitudinal and behavioral outcomes. Yet there is limited knowledge on job satisfaction levels in Cyprus. The purpose of this paper is to present the results obtained from a cross-sectional study on the job satisfaction levels of individuals employed in selected industries in Cyprus and to show whether there are any statistically significant differences between male and female job satisfaction levels. The implications of the findings are discussed and the results are compared to those of the 1997 International Social Survey Program. The limitations of this study are identified and recommendations for future research are made.

LITERATURE REVIEW

Research on job satisfaction has been conducted on the various methodological approaches to its measurement and differences in job satisfaction levels (e.g. Donohue and Heywood, 2004; Edgar and Geare, 2005; Oshagbemi, 1999; Sousa-Poza and Sousa-Poza, 2000); on the factors determining job satisfaction (e.g. Crossley and Highhouse, 2005; Judge *et al.*, 2000, 2002; Smucker *et al.*, 2003); and on the attitudinal and behavioural outcomes of job satisfaction (Bowling, 2007; Currall *et al.*, 2005; Judge *et al.*, 2001; Sousa-Poza and Sousa-Poza, 2007). What follows is a brief review of the construct and literature regarding the extent to which there are demographic differences with respect to job satisfaction.

Dimensions of Job satisfaction

Job satisfaction is an attitude that reflects individuals' beliefs and feelings about their jobs. These beliefs and feelings can be perceived holistically i.e. as overall job satisfaction, or as comprised of various job facets. Thus, one can refer to individuals' overall (general) job satisfaction levels, as well as to their satisfaction with respect to particular extrinsic job facets such as pay, working conditions, fringe benefits, supervision, coworkers, and job security, as well as intrinsic job factors such as the nature of the work, freedom to work independently, and advancement opportunities (Smucker *et al.*, 2003).

Measuring job satisfaction

Job satisfaction is usually measured by the use of questionnaire surveys in which individuals rate their job satisfaction level according to a Likert-type response scale. Various instruments have been developed and used to measure individual facet and/or global levels of job satisfaction (Clusky and Vaux, 1997; Crake, 2003; Davis, 2006; Kane, 1996; Lovelace, 1996). Some of the more commonly used instruments that have exhibited good validity and reliability are the Job Descriptive Index (JDI) and Job in General Scale (JIG; Balzer *et al.*, 1997); the Job Satisfaction Blank (JSB; McNichols *et al.*, 1978); and the Minnesota Job Satisfaction Questionnaire (MSQ; Weiss *et al.*, 1967).

Demographic differences in job satisfaction

Various studies (yielding mixed results) have been conducted to determine whether demographic variables such as gender and age are statistically significant explanatory factors of job satisfaction levels. For instance, in investigating the relationship between women's job satisfaction and age, Chambers (1999) did not find a statistically significant difference between younger and older women's job satisfaction levels. Similarly, the results of a longitudinal study by Jespen and Sheu (2003) did not show job satisfaction to be related to either gender or age. Using data from the National Longitudinal Survey of Youth (NLSY), Donohue and Heywood (2004) did not find differences in job satisfaction between younger female employees and males. Nor did Moyes *et al.* (2006) in their study of Hispanic Accounting Professionals in the U.S. find gender or age to be statistically significant explanatory factors of job satisfaction.

The aforementioned findings, however, contrast with the results of other studies. For instance, in Gallup's annual work polls, older workers aged 50 and above tend to be more satisfied with their jobs than younger workers. In two other studies, Lawler (2003) found that women scientists were far more dissatisfied with their jobs than men, yet Clark (as cited in Donohue and Heywood, 2004) found that in Britain women were far more satisfied with their jobs. Sousa-Poza and Henneberger (2002) found that in white-collar (non-manual) professions, women experienced greater levels of job satisfaction than men in both the UK and the USA. In an earlier study, Tang and Talpade (1999) found that men expressed higher levels of satisfaction with pay than women but women experienced higher satisfaction with coworkers than did men. In explaining this difference, these authors suggested that women may have initially been content to choose jobs that paid less in return for more attractive and flexible work schedules. However, any short-term satisfaction derived from other attractive job attributes may have dissipated over time as individuals began to experience dissatisfaction with their comparatively low pay. The aforementioned findings suggest that although certain studies show that there are no significant differences in job satisfaction levels between males and females, other studies have found such differences to exist. In such cases, women and men tend to be satisfied or dissatisfied with different job facets. Yet these differences are not consistent across countries.

According to Gallup's annual polls on work in the U.S., the percentage of full or part-time employed adults who have expressed being *somewhat or completely satisfied* with their jobs has ranged between 84 to 89 percent during the last twenty years while those expressing being *somewhat or completely dissatisfied* have ranged between 11 and 15 percent (Gallup Organization). Similarly, in other countries the majority of workers have also expressed being overall satisfied with their jobs. The results of the 1997 International Social Survey Program (ISSP) showed that the percentage of individuals (employees and self-employed) who expressed being *fairly, very or completely satisfied* with their job ranged from a low of 59.1% in Russia to a high of 89.9% in The Netherlands. In Cyprus, this percentage was 87.2. The percentage of those who expressed being *fairly, very or completely dissatisfied* ranged from a low of 2.5% in Cyprus to a high of 15.5% in Russia. When taking into account those who stated that they were *neither satisfied nor dissatisfied*, the percentage of those who did not express being satisfied with their work ranged from a low of 10.1% in The Netherlands to 41% in Russia. For the ISSP survey, job satisfaction was measured using a one-item global rating instrument. The ISSP survey results for a selected number of countries are shown in Table 1.

	<i>n</i>	<i>Percent of those Fairly, Very or Completely Satisfied</i>	<i>Percent of those Fairly, Very or Completely Dissatisfied</i>	<i>Percent of those who did not express being satisfied</i>
<i>Cyprus</i>	602	87.2	2.5	12.8
<i>Israel</i>	912	81.2	7.9	18.8
<i>France</i>	704	75.9	10.1	24.2
<i>Italy</i>	482	78.8	8.3	21.4
<i>Netherlands</i>	1175	89.9	4.0	10.1
<i>Portugal</i>	888	71.4	6.8	28.6
<i>Spain</i>	406	83.5	5.2	16.5
<i>Hungary</i>	625	62.2	8.2	37.8
<i>Czech Rep</i>	552	78.9	6.7	21.0
<i>Slovenia</i>	534	66.7	7.0	33.2
<i>Bulgaria</i>	477	78.4	8.6	21.6
<i>Russia</i>	859	59.1	15.5	41.0
<i>G. Britain</i>	571	78.9	11.0	21.3
<i>U.S.A.</i>	834	83.4	9.3	16.6
<i>Japan</i>	776	71.8	14.7	28.1

Table 1 - Levels of Job Satisfaction

Although the ISSP results suggest that the majority of workers are satisfied with their work, it is possible that the use of a global (one-item) instrument measure may have inflated job satisfaction levels (Oshagbemi, 1999). Moreover, the above results do not distinguish between employees and self-employed. The results of the ISSP survey did show that self-employed people were more satisfied with their jobs than employees. Thus, the proportion of *employees* who were satisfied was lower than the percentages presented in Table I. In addition, although the majority of respondents expressed satisfaction with their jobs, in certain countries a sizeable minority were not satisfied. For instance, in Israel, Italy, Bulgaria, the Czech Republic and Great Britain approximately one fifth were not satisfied with their job. However, in Cyprus the percentage of those not satisfied was only 12.8%. The findings of this study permit comparisons to be made to the ISSP's 1997 study thus enabling any trends to be identified.

Consequences and determinants of job satisfaction

Most studies have shown a negative relationship between job satisfaction and behavioral responses such as absenteeism and turnover (e.g. Cable and Parsons, 2001; Hellriegel and Slocum, 2004; Newstrom, 2006; Tepper, 2000; Sousa-Poza and Sousa-Poza, 2007; Thomas and Au, 2002), and a positive relationship between job satisfaction and organizational commitment, organizational citizenship behavior, customer satisfaction, and job performance (e.g. Judge *et al.*, 2001; Robbins and Judge, 2009; Susskind, *et al.*, 2003). Although not all absences and turnover are detrimental, evidence shows that absenteeism and high labor turnover are very costly for organizations (e.g. Hardy *et al.*, 2002; Hellriegel and Slocum, 2004; Lu, 1999; Robbins and Judge, 2009). Thus, organizations that are able to attain and maintain high levels of job satisfaction can

be more efficient and effective due to greater employee commitment, better service and performance, and lower costs associated with high absenteeism and turnover.

Although measuring job satisfaction levels is important, it is equally important for managers to determine the factors that may lead to job dissatisfaction. Research evidence shows that person-job fit, person-organization fit, genetic disposition and personality factors are correlated to job satisfaction levels (e.g. Dormann and Zapf, 2001; Judge and Bono, 2001; Judge *et al.*, 2002). The way that managers implement human resource practices has also been found to be significantly related to employees' work attitudes (Edgar and Geare, 2005). Therefore, the purpose of this study was to measure current job satisfaction levels in selected industries and to identify the job facet areas where employees are dissatisfied. The findings may help managers and other decision-makers address potential areas of concern thus helping their organizations to experience the positive attitudinal and behavioural outcomes that arise from improved job satisfaction levels. The results also allow comparisons to be made with the findings in other countries with respect to any possible demographic differences in job satisfaction levels.

METHODOLOGY

A cross-sectional, non-experimental methodological approach that involved hypothesis testing and descriptive statistics was used in this study. The research was carried out in noncontrived settings (Sekaran, 2003). A survey questionnaire was used to collect the information required for data analysis. This study investigated the following three research questions:

1. To what extent, if any, are employees in Cyprus overall satisfied with their jobs?
2. To what extent, if any, is there a statistically significant difference between the extrinsic and intrinsic job satisfaction levels?
3. To what extent, if any, is there a statistically significant difference in the job satisfaction levels of men and women?

Sampling Method

Specific industries were chosen to participate in this study because their work environments met certain criteria that were deemed important for this research. These included education, banking, electricity supply, telecommunications, the port authority, water supply, and sewerage and drainage. Therefore, purposive sampling was used to choose participant organizations for this study. This sampling approach allows the researcher to obtain information from specific types of people who meet the criteria set by the researcher and who can provide the desired information (Sekaran, 2003). One of this study's objectives was to determine the extent to which there is a difference between extrinsic and intrinsic job satisfaction levels. Therefore, it was necessary to select organizations in which employees experience adequate extrinsic factors such as convenient work hours/schedules, job security and good pay. In Cyprus, extrinsic job factors are prevalent in banking and educational institutions, and public sector organizations. Thus, the chosen participants were comprised of individuals working in primary, secondary and tertiary level (private and public) educational institutions, 17 branches of three large banks, six banking cooperative societies, the Cyprus Port Authority, the Cyprus Telecommunications Authorities

(CYTA), a local public Sewerage and Drainage Board, the Electric Authorities of Cyprus (EAC) and Water Boards in three towns.

Within all the participating organizations (except banking and educational institutions) simple random sampling was used by the organizations' contact persons to select employee participants. The selection of employees in financial and educational institutions was made using a nonprobabilistic convenience sampling method. This approach was necessary in choosing participants because a list of all the employees could not be obtained and thus not every employee in the respective sample populations had an equal chance of being selected.

Data Collection Methods

Having obtained permission from participating organizations' directors/managers, questionnaires were hand distributed to contact persons (mainly HR personnel or administrators) who gave reassurances that the questionnaires would be distributed to a randomly selected sample of employees. Each questionnaire was accompanied by an explanatory cover letter and a prepaid stamped envelope. Organizations were provided with survey collection boxes in which employees could drop their answered questionnaires. Alternatively, employees could mail their responses to the researcher using the prepaid stamped envelopes that accompanied the questionnaires. Participants were given 2 weeks to return their anonymously answered questionnaires. Most responses were obtained from the survey collection boxes.

Participating employees were asked to provide demographic information regarding their age group, educational level, job title, and income group level. Subjects' levels of job satisfaction with respect to 20 facets of work and work environments were measured using the Minnesota Satisfaction Questionnaire (MSQ) short form, a 20 item instrument that utilizes a 5-point Likert type scale response. This scale ranges from 1 to 5, where 1 = *I am very dissatisfied*, and 5 = *I am very satisfied*. The Minnesota Satisfaction Questionnaire provides a comprehensive, reliable and valid measurement of job satisfaction (Weiss *et al.*, 1967; Crake, 2003). High reliability coefficients have been recorded for the MSQ short-form. The MSQ's construct, concurrent, and content validities are supported by evidence in the Manual for the MSQ.

In contrast to other instruments that measure job satisfaction, the MSQ allows a researcher to potentially collect more information about which particular job aspects contribute to positive or negative work attitudes. Furthermore, the MSQ also produces two factor-based scores that distinguish between intrinsic and extrinsic satisfaction. A general (overall) job satisfaction score is obtained via a summation of the responses to the 20 job facet items (Weiss *et al.*, 1967).

Although there is evidence that single (global) measures of job satisfaction yield similar results to multiple-item measures (Robbins and Judge, 2009), the use of a multiple-item instrument makes it possible to relate job dissatisfaction to specific job aspects thus permitting managers to identify areas where corrective action can be taken to improve job satisfaction levels (Oshagbemi, 1999). For instance, two individuals may both experience low levels of job satisfaction as indicated by a global measure. However, a multiple-item measure of job satisfaction may show that one's dissatisfaction derives from perceived low pay whereas the

other person's dissatisfaction may be mainly due to a lack of perceived advancement opportunities.

Due to the existence of a number of measures of job satisfaction, researchers and managers face a dilemma in deciding which instrument to use. This decision is important as different instruments may yield different results (Crake, 2003). For instance, in his study of job satisfaction measures, Oshagbemi (1999) found that in comparison to results obtained using multiple-item measures, single-item measures overestimated the proportion of individuals satisfied with their jobs and greatly underestimated both the proportion of dissatisfied people and those who showed indifference. This should therefore be taken into account when interpreting findings regarding job satisfaction levels in surveys that have used single-item measures as is the case with the ISSP.

Data Analysis

Hypothesis testing and descriptive statistics were used to investigate the research questions. To investigate research question 1 (the extent to which employees in Cyprus are overall satisfied with their jobs), frequencies of overall job satisfaction ratings were calculated and a one sample *t* test on overall job satisfaction was conducted. The null hypothesis was that employees are neither satisfied nor dissatisfied overall with their jobs. To investigate research question 2 (the extent to which there is a statistically significant difference between the extrinsic and intrinsic job satisfaction levels of employees), the mean extrinsic and intrinsic facet-specific job satisfaction levels were calculated and a *t* test on the means was conducted. To investigate research question 3 (the extent to which there is a statistically significant difference between the job satisfaction levels of males and females), a two-independent-samples *t* test was conducted.

Limitations

As in any survey questionnaire, it is possible that the subjects answered questions incorrectly either because they did not fully or clearly understand them or because they were not willing to spend the necessary time to answer them carefully or seriously. In addition, despite the anonymous nature of the survey and reassurances of confidentiality, subjects may not have provided honest answers fearing that somehow their responses might be identified leaving them exposed to their managers. This is more likely to have occurred if a department had a small number of employees and/or the answered questionnaires were hand delivered to a particular person instead of being placed in the survey collection box. Moreover, participants may have responded to the job satisfaction questions in a way that reduced potential cognitive dissonance. Thus, individuals may have expressed satisfaction or avoided expressing dissatisfaction to avoid such dissonance. In addition, although the usable response rate of 36% was satisfactory, there is always the possibility that the non-participants differed from the survey subjects thus compromising the interpretation and generalizability of the results. Finally, the findings cannot be generalized to the whole population as participating organizations were not selected with a random probabilistic sampling method, and employees in educational and financial institutions were selected using a convenience sampling approach.

RESULTS

General (overall) job satisfaction

Table 2 shows the subjects' general (overall) job satisfaction levels for each of the five instrument ratings. Out of the 643 individuals who provided useable responses, 59 (9.2%) reported that overall they were *very satisfied* with their job. Another 392 respondents (61%) stated that they were overall *satisfied* with their jobs. Thus, a total of 451 (70.2%) reported being either overall *very satisfied* or *satisfied* with their job. However, 181 employees (28.1%) stated that they were *neither satisfied nor dissatisfied* and 11 respondents (1.7%) stated that they were overall *dissatisfied* with their jobs. No one reported being overall *very dissatisfied*. These results show that almost a third of those surveyed (29.8%) did not express being overall satisfied with their jobs.

<i>General (Overall) Job Satisfaction</i>	<i>Frequency</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
<i>Very dissatisfied</i>	0	0	0
<i>Dissatisfied</i>	11	1.7	1.7
<i>Neither dissatisfied nor satisfied</i>	181	28.1	29.8
<i>Satisfied</i>	392	61.0	90.8
<i>Very satisfied</i>	59	9.2	100.0
<i>Total</i>	643	100.0	

Table 2 - Frequencies of General Job Satisfaction Ratings

Table 3 shows the results of the one-sample t test on overall job satisfaction. The hypothetical population mean was assumed to be 3, i.e. individuals are neither satisfied nor dissatisfied overall with their jobs. The difference between the observed mean and hypothetical population mean was 0.66. The probability of observing a sample t value greater than +33.30 or less than -33.30 is less than 0.0005. The significance level is small ($p < 0.0005$) thus permitting the rejection of the null hypothesis that Cypriot employees are neither satisfied nor dissatisfied. Since the observed mean was 0.66 above the hypothesized population mean, the alternative hypothesis that Cypriot employees overall are satisfied with their jobs can be accepted.

Mean	Std. Dev.	Std. Error Mean	t	df	Significance (2-tailed)	Mean Differ.	95% Con. Interval of the Difference	
							Lower	Upper
3.66	.50	.02	33.30	642	.000	.662	.63	.70

Table 3- One-sample t test on overall job satisfaction

Facet-specific job satisfaction levels

Table 4 shows the mean ratings of the 20 MSQ job facet items. Subjects expressed being satisfied the most with the way their job provided for steady employment (mean = 4.27). Other job facets that subjects expressed being relatively more satisfied with were the chance to do things for other people (social service, mean = 4.09); the feeling of accomplishment they get from their job (achievement, mean = 3.90); the chance to do something that makes use of their abilities (ability utilization, mean = 3.89); and the chance to work alone on the job (independence, mean = 3.89). Subjects reported the least satisfaction with the chances for advancement on the job (promotion opportunities, mean = 3.00); the way their company's policies are put into practice (mean = 3.10); the praise they get for doing a good job (recognition, mean = 3.33); and the competence of their supervisors in making decisions (mean = 3.42).

(n = 643)	Mean	Std. Deviation
Steady employment	4.27	0.72
Social service	4.09	0.71
Achievement	3.90	0.88
Ability utilization	3.89	0.80
Independence	3.89	0.81
Moral values	3.88	0.83
Variety - Do different things	3.74	0.98
Activity - Keeping busy	3.74	0.85
Creativity - Using own methods	3.73	0.90
Being somebody	3.69	0.80
Working conditions	3.68	0.96
Responsibility	3.67	0.90
Coworkers	3.60	0.96
Authority	3.58	0.72
Pay related to work	3.56	0.99
Human relations supervision	3.46	1.02
Technical supervision	3.42	0.99
Recognition	3.33	0.98
Company policies & practices	3.10	0.88
Promotion opportunities	3.00	1.04

Table 4 - Hierarchy of Facet-specific Job Satisfaction Levels

Table 5 presents the frequencies and percentages of the subjects' 20 MSQ facet-specific satisfaction levels for each of the five satisfaction/dissatisfaction ratings. Fifty seven individuals (8.9%) stated that they were *very dissatisfied* with their chances for advancement on the job, and 32 individuals (5%) were *very dissatisfied* with the praise they received for doing a good job. On the other hand, two hundred fifty three (39.3%) stated that they were *very satisfied* with the way their job provided for steady employment, 181 (28.1%) with the chance to do things for other people and 152 (23.6%) with the feeling of accomplishment they got from their job.

Although the majority of subjects expressed being *satisfied* or *very satisfied* with 16 of the 20 measured job facets, there do appear to be some areas of concern. For instance, only 32.7% of the subjects expressed being *satisfied* or *very satisfied* with the way company policies are put into practice, and only 35.7% with the chances for advancement on the job. Less than half the subjects (47.1%) expressed being *satisfied* or *very satisfied* with the praise they get for doing a good job, and just over half with the chance to tell other people what to do (53%), the competence of their supervisors in making decisions (52.9%) and the way their boss handles subordinates (53.7%).

(n = 643) Job facets	Very dissatisfied		Dis-satisfied		Neither Dissatisfied nor satisfied		Satisfied		Very Satisfied	
	n	%	n	%	n	%	n	%	N	%
Ability ^a	5	0.8	36	5.6	104	16.2	377	58.6	121	18.8
Achievement	14	2.2	29	4.5	114	17.7	334	51.9	152	23.6
Activity	15	2.3	30	4.7	159	24.7	344	53.5	95	14.8
Advancement	57	8.9	146	22.7	210	32.7	199	30.9	31	4.8
Authority	3	0.5	21	3.3	278	43.2	281	43.7	60	9.3
Co Policies ^b	23	3.6	125	19.4	285	44.3	185	28.8	25	3.9
Compensation	22	3.4	82	12.8	137	21.3	315	49.0	87	13.5
Co-workers	22	3.4	61	9.5	158	24.6	312	48.5	90	14.0
Creativity	10	1.6	60	9.3	131	20.4	333	51.8	109	17.0
Independence	5	0.8	27	4.2	137	21.3	338	52.6	136	21.2
Moral Values	10	1.6	28	4.4	120	18.7	356	55.4	129	20.1
Recognition	32	5.0	85	13.2	223	34.7	245	38.1	58	9.0
Responsibility	14	2.2	60	9.3	141	21.9	340	52.9	88	13.7
Security	4	0.6	11	1.7	48	7.5	327	50.9	253	39.3
Social service	3	0.5	5	0.8	101	15.7	353	54.9	181	28.1
Social status	8	1.2	24	3.7	214	33.3	308	47.9	89	13.8
Supervision – human relations	29	4.5	79	12.3	190	29.5	260	40.4	85	13.2
Supervision – technical	27	4.2	85	13.2	191	29.7	269	41.8	71	11.0
Variety	14	2.2	66	10.3	131	20.4	295	45.9	137	21.3
Work conditions	23	3.6	51	7.9	137	21.3	329	51.2	103	16.0

Table 5 - Frequencies of Facet-Specific Satisfaction Ratings. Notes: ^aAbility utilization. ^bCompany policies and practices.

Extrinsic and intrinsic job satisfaction

Researchers have differentiated between job factors with respect to whether an individual obtains satisfaction intrinsically by performing the job or extrinsically from some external source (Herzberg *et al.*, 1959). For most part there tends to be a consensus regarding the categorization of the job factors. However, certain variables (e.g. advancement opportunities, job security) have been viewed as extrinsic and intrinsic factors by different researchers in different studies (e.g. Herzberg *et al.*; Weiss *et al.*, 1967).

In this study, the following job facets are considered to contribute to extrinsic job satisfaction: supervision – human relations; supervision - technical; company policies and practices; compensation; working conditions; co-workers; and job security. The following facets are considered to contribute to intrinsic job satisfaction: activity, independence, variety; social status; moral values; social service; authority; ability utilization, responsibility; creativity; achievement; advancement; and recognition.

The mean facet-specific job satisfaction levels (that were presented in Table 4) are distinguished (in Table 6) according to whether they are considered as contributing to extrinsic or intrinsic job satisfaction. The highest levels of extrinsic job satisfaction arose from *job security*, *working conditions* and *coworkers*. The highest levels of intrinsic job satisfaction arose from *social service*, *achievement*, *ability utilization*, and *independence*. The mean for intrinsic job satisfaction was 3.70 slightly higher than that for extrinsic job satisfaction (3.58). The standard deviations for extrinsic job facets ranged from 0.72 for *job security* to 1.02 for *supervision - human relations*. The standard deviations for intrinsic facets ranged from 0.71 for *social service* to 1.04 for *advancement opportunities*. For both categories, the facet with the highest mean rating had the smallest standard deviation.

<i>n</i> = 643		
<u>Extrinsic</u>	Mean	SD
<i>Job security (Steady employment)</i>	4.27	0.72
<i>Working conditions</i>	3.68	0.96
<i>Coworkers</i>	3.60	0.96
<i>Monetary compensation</i>	3.56	0.99
<i>Supervision – Human relations</i>	3.46	1.02
<i>Supervision – Technical</i>	3.42	0.99
<i>Company policies & practices</i>	3.10	0.88
<i>Extrinsic Job Satisfaction Mean</i>	3.58	
<u>Intrinsic</u>		
<i>Social service</i>	4.09	0.71
<i>Achievement</i>	3.90	0.88
<i>Ability utilization</i>	3.89	0.80
<i>Independence</i>	3.89	0.81
<i>Moral values</i>	3.88	0.83
<i>Variety – Do different things</i>	3.74	0.98
<i>Activity – Keeping busy</i>	3.74	0.85
<i>Creativity – Using own methods</i>	3.73	0.90
<i>Social status – Being somebody</i>	3.69	0.80
<i>Responsibility</i>	3.67	0.90
<i>Authority</i>	3.58	0.72
<i>Recognition</i>	3.33	0.98
<i>Advancement opportunities</i>	3.00	1.04
<i>Intrinsic Job Satisfaction Mean</i>	3.70	

Table 6 - Extrinsic and Intrinsic Facet-Specific Job Satisfaction Levels

The results of a *t* test on the intrinsic and extrinsic job satisfaction means are shown in Table 7. The probability of observing a sample *t* value greater than +6.79 or less than -6.79 is less than

0.0005. The significance level is small ($p < 0.0005$) thus permitting the rejection of the null hypothesis that the average difference between the two means is 0. Hence, the subjects of the participating organizations obtain slightly more satisfaction from intrinsic job factors compared to extrinsic job factors. This finding was statistically significant at the 0.05 level.

Mean Difference	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
			Lower	Upper			
.11866	.44289	.01747	.08436	.15295	6.794	642	.000

Table 7 - T-test on intrinsic and extrinsic job satisfaction

Reliability of MSQ scales

Correlational analysis of the 20 MSQ items produced correlation coefficients that ranged from .09 for *authority* and *activity* to .73 between *human relations supervision* and *technical supervision*. Cronbach's Alpha was calculated to determine the internal consistency of the 20 MSQ scales. Cronbach's coefficient alpha indicates how well a set of items measure a single one-dimensional latent construct such as job satisfaction. High inter-item correlation coefficients suggest that the instrument is a good measure of the single one-dimensional latent construct (Crake, 2003; Sekaran, 2003).

Table 8 shows the results of the reliability analysis scale. The reliability coefficients ranged from a low of .879 for the *creativity*, *responsibility* and *human relations* scales to a high of .887 for the *job security* and *activity* scales. The general job satisfaction scale had a reliability coefficient of .88.

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Activity - Keeping busy	69.50	94.79	.36	.22	.887
Independence	69.34	93.86	.45	.29	.884
Variety - Do different things	69.49	91.41	.49	.32	.883
Being somebody	69.54	92.69	.53	.38	.882
Human relations supervision	69.78	88.94	.60	.63	.879
Technical supervision	69.81	90.48	.53	.57	.882
Moral values	69.35	93.81	.44	.23	.884
Steady employment	68.97	96.21	.34	.24	.887
Social service	69.14	94.83	.45	.34	.884
Authority	69.65	95.70	.38	.28	.886
Ability utilization	69.34	92.64	.54	.39	.882
Company policies & practices	70.13	91.20	.57	.43	.880
Pay related to work	69.67	91.93	.46	.33	.884
Promotion opportunities	70.23	90.14	.52	.40	.882
Responsibility	69.57	90.14	.62	.56	.879
Creativity - Using own methods	69.50	90.38	.60	.55	.879
Working conditions	69.55	91.57	.50	.34	.883
Coworkers	69.63	92.07	.47	.28	.884
Recognition	69.90	89.86	.57	.45	.880
Achievement	69.33	90.79	.59	.44	.880

Table 8 - Reliability Analysis of Job-Satisfaction Scale (Cronbach's Alpha).

Notes: Number of cases = 643. Statistics for scale: Mean = 73.23; Variance = 101.528; Stan. Dev. = 10.076; Variables = 20. Reliability Coefficients 20 items Alpha = .888. Cronbach's Alpha Based on Standardized Items = 0.887. (The Alpha coefficient is an estimate of the true alpha which is a lower bound for the true reliability.)

Gender differences in job satisfaction

Table 9 shows the results of the two-independent-samples *t* test that was conducted to determine if there is a statistically significant difference between the job satisfaction levels of men and women. The observed significance level for the Levene test is large therefore the null hypothesis that the two population variances are equal cannot be rejected. Thus, equal variances are assumed. Since the equal variance *t* test was used, the degrees of freedom are just the sum of the two sample sizes minus 2. The mean difference is .003. The observed two-tailed significance level is more than 0.05 ($p = .939$). Since the confidence interval includes the value of 0, the null hypothesis that the mean job satisfaction levels of females and males are equal cannot be rejected.

Gender		n	Mean	Std. Deviation	Std. Error Mean
Overall job	Female	376	3.6616	.50485	.02604
Satisfaction	Male	265	3.6585	.50185	.03083

	Levene's Test For Equality of Variances		t test for Equality of Means						
	F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper	
Equal variances assumed	.085	.77	.076	639	.939	.00308	.04039	-.076	.0824
Equal variances not assumed			.076	570.557	.939	.00308	.04035	-.076	.0823

Table 9 - test on mean job satisfaction levels of males and females

Note: Although responses were obtained from 643 employees, two respondents did not indicate their gender therefore for this t test n = 642.

CONCLUSIONS

One of the objectives of this study was to determine the extent to which employees in Cyprus are overall satisfied with their jobs. The results of this study indicate that the employees in the selected industries are overall satisfied with their jobs. However, the proportion of those who expressed some level of job satisfaction (70.2%) was lower than that found in the 1997 ISSP survey (87.2%). Thus, the percentage of this study's respondents (29.8%) who did not express overall job satisfaction was more than twice as large as that in 1997 (12.8%). This comparison however must be made having in mind that the participating organizations for this study were not randomly chosen and only employees but no self-employed individuals comprised the sample.

The second objective of this study was to determine the extent to which there is a significant difference between the extrinsic and intrinsic job satisfaction levels. The results indicate that this survey's subjects experienced a statistically significant higher level of intrinsic job satisfaction. When considering job satisfaction with respect to specific job facets, almost 40% of the respondents were *very satisfied* with the way their job provided for steady employment. This finding was not unexpected as one of the job characteristics of the participating organizations is that there is job security. However, approximately only a third of the respondents expressed some level of satisfaction with their perceived promotion opportunities and the way company policies are put into practice. Less than half were satisfied with the recognition they get for their

performance and only slightly more than half were happy with the competence of their supervisors and the way their superiors handle their subordinates.

The third objective was to determine the extent to which there is a significant difference in the job satisfaction levels of men and women. The results of this study did not show that a statistically significant difference exists between the job satisfaction levels of males and females. This finding is similar to that found by Jespen and Sheu (2003), Donohue and Heywood (2004), and Moyes *et al.* (2006). It does however contrast with other findings (e.g. Sousa-Poza and Henneberger, 2002).

MANAGERIAL IMPLICATIONS

The results of this study suggest that managers need to evaluate the way they handle their subordinates, and the way they put company policies into practice. Are the relatively low job satisfaction levels with respect to these job facets due to employees' perceived lack of fair treatment by their superiors? Is there a need for certain managers to improve their interpersonal and social skills? Given that just over half the respondents expressed satisfaction with the competence of their superiors, is there a need to improve supervisors and managers technical and managerial skills? Do subordinates feel that they know more than their superiors? If so, what implications might this have with respect to perceived fairness and motivation? According to equity theory of motivation, individuals' motivational levels are influenced by their perception of the extent to which they are treated fairly (Johns and Saks, 2005). Individuals compare, for instance, the rewards they receive in return for what they offer to their employer (e.g. effort, quality of work, loyalty, level of education and work experience). Perceived inequity may result in dissatisfaction that may in turn negatively affect motivation (Johns and Saks, 2005).

Moreover, the low proportion of those satisfied with the praise they get from their superiors for their work echoes a common phenomenon found in other studies (Robbins & Judge, 2009). Employees seem to value and have a need to receive praise for their work. Yet managers are not offering adequate recognition. Frederic Herzberg's two-factor theory posits that workers will experience job satisfaction when their job has or offers them intrinsic factors such as recognition, achievement, responsibility, advancement, growth, and an interesting work (Herzberg *et al.*, 1959). Studies have shown that recognition can be an important motivational tool (Caudron, 1995; Nelson, 1996). Compared to other methods used to motivate workers, recognition tends also to be less costly (Robbins and Judge, 2009).

Future research could be conducted in Cyprus to determine if the aforementioned findings generalize across other industries including the private sector. Research could be carried out to determine how important managers perceive recognition to be and whether they feel that they adequately recognize their subordinates' good performance. It may be that managers are purposely selective in the praise they give so that it is more meaningful. Alternatively, managers may be hesitant to praise their workers fearing that the latter will begin to slack off or expect pay rises that the organization cannot afford. Research can also be conducted to determine if the relatively high job satisfaction levels are associated with high levels of worker productivity, customer satisfaction, and organizational performance.

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RECENT BANK BAILOUTS - LESSONS TO LEARN WHEN PATIENCE IS A VIRTUE

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Purpose: Most recent bank bailouts from financial and economic perspective turn to be politicized. This paper frames ten effective implications/lessons of the most recent bank bailouts of 2007-2009 in the Western economy model when analyzing actual shareholders' value retrenchment or growth opportunities.

Design/methodology/approach: Use of literature review and re-conceptualised framework of event study methodology. Secondary data analysis of qualitative and quantitative information.

Findings: Recent bank bailouts relate to: global bailout interconnections, economic downturn and liquidity boost, abnormal returns, efficiency recovery, evade social costs, new opportunities for M&A, new risk management applications, opportunistic investors and eventually patience. Some findings recommend shareholders to grasp opportunities for bargains from bailout banks as well as still harvest their existing investments. At the same time economic education and control becomes another important solution.

Research limitations/implications: Consequently, as the paper targets most recent bailouts, a still ongoing event, there is a need for extended financial data that could enhance some cause-related solutions after economic recovery.

Practical implications: The practicality of the paper refers to guiding management of both government and financial institutions on the choice for reasoning bank bailouts, providing some critical thinking views to investors as well as academics.

Originality/value: There has not yet been written research or studies on the most recent financial crises bailouts, due to the process continuation. The novelty of the paper's resides not in calculating ratios and interpreting them, but rather to looking more into some interesting strategic moves used to boost shareholders' value.

Paper classification: Conceptual paper

Key words: shareholders' value, bank bailout, bank consolidation, M&As, financial crisis, social corporate responsibility

INTRODUCTION AND METHODOLOGICAL REASONING:

Bank bailout main theoretical motive

Bank bailouts are happening in various cases, some relate to real financial opportunities to save a "too big to fail institution". Others, (Stern and Feldman, 2003) look upon the perceived growing concern of the moral hazard, for which there is a need for a bailout in the first place.

If we revisit to the main stream of motives for which bank bailouts occur, we identify a common denominator: moral hazard, a spinout of information asymmetries in the financial market that lead most of the time to the so called principal – agent problem. This relates simply to a conflict of interests at least on two different levels: the principal- usually the government in this case, and the agent- the lending institutions or the banks in general.

An interesting combination of facts is mirrored in the concept of systemic moral hazard, which transmits a unique dispute in regulatory responses. The argument lies in that the most appropriate response to systemic moral hazard is "preventive prediction." (Okamoto, 2008). It is essentially difficult to reward individuals for producing preventive prediction. Therefore markets fail to produce it at optimal levels, and thus prevent systemic moral hazard and the kind of crisis we are facing.

Some may say that managers should look for prosperity without 'hurting' their customers or principals again, by secluding or keeping away information. And all this is encouraged as the principal cannot perfectly monitor the agent. Therefore, one of the causes of these financial crises and therefore of the bailouts resides in *lack of proper supervision and monitoring* and not the business pattern.

Since we could see many other banks succeeding in securitisation and lending activities, as well as in keeping their depositors satisfied, while others do not, it becomes simplistic to assume that their long term strategies are wrong. Banks need to take risks through lending, and the rule is the riskiest loans could yield highest returns. A moral hazard appears if banks make risky loans thinking that they that will repay nicely in good conditions. Yet, these banks will not be liable for any loss if their transactions collapse. Thus, such banks keep the profits but will dispose of social costs. During the years, taxpayers, depositors, and creditors have always been in the tragic situation of compensating for the losses made by the banks' risky financial decisions. This is because they partner in one way or another with them at various stages of their lifetime.

Bank bailouts by governments, central banks or other institutions can drag on risky lending in the future, if those that take the risks become "bullet proof "in front of potential losses. It appears that a central bank, by announcing and committing *ex-ante* to a bailout policy that is reliant on the recognition of certain states of nature (such as an adverse macroeconomic shock incident), creates a risk-reducing "value effect" that more than compensates for the moral hazard component of the policy (Cordella and Levy-Yeyati, 2003).

Of course, there are other causes. One can argue that the government can efficiently provide liquidity except when too much liquidity asks for inflationary pressure; it can protect the currency when eroded by lack of confidence and high deficit. In this situation the banks get hurt in their funding costs, while this ruins depositors' confidence in both safety and liquidity at the same time. Yet, most often history is forgotten and confidence is reestablished slowly through gaining higher yields again for the banks' customers or by other various rewards (as we would see in the cases analysed in this paper).

In terms of methodology used for this paper, the main source of information is based on event study analysis during 2007-2009 in U.S. and Western European markets as to the evolution of the bailed out banks as to their strategies and share prices. This method provides the paper useful information that can be correlated with the secondary data gathered on bailout literature review as well as on the current bailout banks' strategic analysis. Bank reports and tertiary analyses were interpreted in order to find the correlation with the literature review as the events unfolded.

LITERATURE REVIEW AND THE PAPER FRAMEWORK

This section of the paper displays under a literature review format the author's suggested lessons from bank bailouts, as they are presented through secondary data analysis and event methodology. Of these lessons, some may interact with each other, while other will stand alone. The table below shows the ten pinpointed lessons their essence. This will facilitate following the paper's recommendation and conclusions.

<i>Lesson No</i>	<i>Related to</i>	<i>Lesson Learned</i>
1	<i>The electorate's creeping confidence</i>	<i>There is no need for bailout if it deepens financial crisis eventually through lack of confidence.</i>
2	<i>Too-big-to-fail rule vs. Too-many-to-fail rule</i>	<i>In contrast to the too-big-to-fail problem of the large banks, the too-many-to-fail problem affects small banks more by giving them stronger incentives to usher.</i>
3	<i>M&As vs. hidden bailouts</i>	<i>Non-distressed mergers may be motivated by the desire to prevent bailouts. Bank consolidation may be eligible for bailouts, but the non-banks may line up for M&As.</i>
4	<i>Hijacking the guilty bank</i>	<i>Either government protective schemes or imprudent banking practices make the "guilty bank" sensitive to takeovers.</i>
5	<i>The equality issue and the cultural – innovation clash</i>	<i>Innovation goes with banking anytime, but its constructive nature depends on the cultural lens in viewing equality issues</i>
6	<i>Who to save first</i>	<i>Bailouts cannot be ethically justified because the losers exceed the winners. Taxpayers seem to be the main concern, but corporations are first.</i>
7	<i>The long term perspective of the social costs</i>	<i>Bailout targets eventually fail, due to government favoring underperforming public firms, thus increasing social costs.</i>
8	<i>The grape-vine effect</i>	<i>The banking crisis in a country leads creditors to reexamine policymakers' willingness to bailouts in other countries.</i>
9	<i>Bank pricing strategies</i>	<i>Higher prices spring everywhere since regulators suffer an opportunity cost of capital from not receiving any earnings from bank sales or liquidation on short term.</i>
10	<i>Bailout recuperation time-and investors 'money-loop</i>	<i>The bank can repay its debt when it's stable enough to fulfill capital requirements, so when the bank starts repaying substantially the state is viewed by investors as a sign of strength, no matter the depth of the financial aid allocated per GDP.</i>

Table 1. *The ten lessons of bank bailouts (Source: author's analysis)*

1st Lesson (The electorate's creeping confidence)

Bank solvency crises are due to macroeconomic shocks in a model where government is prone to bailout because of cronyism (Vaugirard, 2007). When we transact in a multi-globalised economy or overwhelmingly 'foreign-ised', with so many interdependencies, anyone may think of the citizens' rights to dismiss the government and rule against its decision if they believe that a bailout is not justified. Thus, both political and banks' balance sheet uncertainties enlarge the set of factors for which a banking crisis occurs and may increase financial instability. Politico-financial crises may stem from foreign lenders' loss of confidence rather than liquidity issues or lending incapacity. *There is no need for bailout if it deepens financial crisis eventually through lack of confidence.*

There are also cases where money from the bailout went to purchase another bank or bailout money went to CEO's bonuses or parties (end of the year), and this should be only the less tough part of the story.

2nd Lesson (Too-big-to-fail rule vs. Too-many-to-fail rule)

Too-many-to-fail problem happens when the number of bank failures is quite large, the regulator finds it *ex-post* optimal to bailout some or all failed banks. When the number of bank failures is rather small, failed banks can be acquired by the stronger more protective banks. This could give the industry some incentives to regroup and increases the risk that many banks may fail together at a later stage. The *ex-post* optimal regulation may thus be time-inconsistent or sub-optimal from an *ex-ante* standpoint (Acharya and Yorulmazer, 2007).

In contrast to the too-big-to-fail problem which mainly affects large banks, it is interesting to show that the *too-many-to-fail* problem affects small banks more by giving them stronger incentives to usher. We may add here that the actual match between the banks, when these merge or get acquired should also be analysed from this perspective. There is the perception that failing banks can be saved by mergers with healthy banks, yet the theory and practice shows how the new merged bank has higher chances of failure than the actual saved by merger bank (Shih, 1999).

This is due to the fact that motives of M&A could lead sometimes to the success or failure of the new bank (Mihai Yiannaki, 2007). In this sense, there seems to be many other banks and industries looking at how they will ensure post-merger or acquisition integration success. That is to say that no decisions will be made till the climate is more favorable.

3rd Lesson (M&As vs. hidden bailouts)

On the same line of thought, most bank merger studies do not account for hidden bailouts, which may lead to biased results. In a study that employed a unique data set of approximately 1000 mergers to analyze the determinants of bank mergers (Koetter *et al.*, 2007), the authors used undisclosed information on banks' regulatory intervention history to distinguish between distressed and non-distressed mergers. Among merging banks, they found that improving financial profiles lower the likelihood of distressed mergers more than the likelihood of non-distressed mergers. The likelihood to acquire a bank is also reduced but less than the probability

to be acquired. Both distressed and non-distressed mergers have poorer CAMEL profiles than non-merging banks.

Therefore in terms of observing regulations, the bank consolidation in the asset management industry is set to intensify as overruling the law and the client demands for independence and force banks to skim off their funding arms. And, since the investment management industry is in early days of consolidation, it seems that this trend is in place for a while and that is around independence. The rate of growth of the independents has been double that of the banks. The reason for it is the increasingly difficulty of a bank to have a top-tier position in institutional investment banking and in institutional investment management.

It is interesting to notice then that non-distressed mergers may be motivated by the desire to pre-empt serious future financial distress and prevent regulatory intervention, such as bailouts.

4th Lesson (Hijack the guilty bank)

Once Japan got into a crony bank system failure after the 1990's, it had successive government laws backing guarantee schemes for commercial banks deposits, method viewed as an excessive example of encouraging imprudent banking practices, misallocating financial resources and prolonging structural weaknesses (Stern and Feldman, 2003).

Across the Ocean, a different extreme, all the major investment banks, Bear Stearns, Lehman Bros, Merrill Lynch, Goldman and Sachs, Morgan Stanley, etc. were they essentially wrong? Their core business relied on easy access to credit, and when one of their main "assets" (mortgage backed securities) posed danger to the stakeholders, they suddenly became less valuable in securing their own loans. Without sufficient business to run they became really bankrupt. *Hence, are they all to be treated equally in the eye of the regulators when it comes to doing the same mistake to get bailed out?*

The latest "capital injection" plan of the U.S. is less bound to the fundamental problems of the bailouts, as is just a short run "shock buffer" aimed at reducing volatility and reinstalling investors' confidence. Whether it can do so without addressing the real problems is not clear (Congleton, 2008). *Then, are the bank bailouts really addressing the same problem? Where is the equality and equity stake placed and then where has the difference gone?*

5th Lesson (The equality issue and the cultural –innovation clash)

Coming back to the social issue of equality, and pinching on "cultural issues", each country puts in practice its own bailout system depending on the structural problems of their banks gridlock. Following the 3rd Lesson we can identify by logic that there are apparently three types of bailouts:

1. one done by the state for the simple and untranslatable reason "too big to fail"
2. one preformed by the private sector through M&A or bank consolidation
3. one done for the "people we know"

“These days even with Alan Greenspan admitting that he was wrong to believe that the financial industry could regulate itself, Reaganesque rhetoric about the magic of market place and the evils of government intervention sounds ridiculous” (Paul Krugman, 2008).

Is it then safe to just trust the government bailouts, thinking they will keep their promises as not to use taxpayers' money to refill the loss too soon? And by the way, where do they record this loss and how do they keep track of it? How deep can we look at the abyss if we are let to do so? Then, when are we going to pay for this loss and at what extent and with what types of costs? Many of the ABS (asset based securities) and mortgages have not yet been withdrawn from the market, still. New innovation in this financial intermediation is therefore needed and new solutions can come up from the market to stop the loss. *Then, how much innovation can we let in the market and who is to decide its constructive nature?*

6th Lesson (Who to save first?)

Discussing about solutions, recent academic research (Murphy, 2008) implies ways out to this recent crisis that are considered to be far less costly than a bailout of investors who made poor financial decisions with respect to credit analysis. But if we play on who is to blame, then we shall reach no positive ending soon enough. However, it becomes necessary to learn who are the winners and the losers? Utilitarian analysis concludes that bailouts cannot be ethically justified because the losers exceed the winners (McGee, 2008). Applying rights theory, Mc Gee reaches the same conclusion for different reasons.

Thus, the emergency legislation for spending \$1.5 trillion on purchasing financial firms' troubled assets to address the current financial crisis, also suggests a superior alternative (Bebchuk, 2008) for achieving the two goals of the proposed legislation:

1. restoring stability to the financial markets and
2. protecting taxpayers and especially the sub-prime borrowers, but these are not ethically interconnected.

So where does ethics and social corporate responsibility come in? To see these results now lets have a look at the 2008 fall's injection of trillions of dollars of federal money into the rehabilitation of the U.S. financial system. Also, all recent efforts by lending institutions and government sponsored agencies have failed to arrest the ruthless climb in foreclosures. Rather, little has been spent to the easing of home foreclosures.

7th Lesson (The long term perspective of the social costs)

Governments in the E.U. do often bail out firms in distress by granting state aid. Data from 86 cases during the years 1995-2003 (Glowicka, 2006) addressed two issues: the impact of bailouts on bankruptcy probability and the determinants of bailout policy. There are some interesting results that require attention:

1. First, the estimated discrete-time hazard rate increases during the first four years after the subsidy and drops after that, suggesting that some bailouts only delayed exit instead of preventing it. The number of failing bailouts could be reduced if European control was tougher.

2. Second, governments' bailout decisions favoured public firms, even though public firms did not outperform private ones in the survival chances.
3. Third, subsidy choice is an endogenous variable in the analysis of the hazard rate. Treating it as exogenous underestimates its impact on the bankruptcy probability.

We would conclude on this issue with a question: What if private banks act like public firms, will the bailout still be in use? *Could it actually provide increased consumer satisfaction and less social costs in the long run?*

8th Lesson (The grape-vine effect)

Policymakers choose whether to rescue failing banking systems by weighing the previous lesson's social costs of crises against the costs associated with raising taxes to finance bailouts. They are the only ones who can appraise those social costs of bank liquidation.

In this scenario, financial crises may result from the public's self-fulfilling prophecies about equilibrium outcomes, as lenders' expectations impinge on the taxation cost of bailouts.

The lesson shows that a *banking crisis in a country leads creditors to reexamine policymakers' willingness to bailouts in other countries*, which eventually makes their banks more vulnerable to self-confirming depositors' runs (Vaugirard, 2005). This can be approximated to the effect of the American bank bailout announcing on the UK and other E.U. countries bailing out their distressed banks.

9th Lesson (Bank pricing strategies)

Bank customers benefit fully from *higher loan interest rates* (Ecomomist.com, 2008) to cover abnormal returns (Yoroulmazer, 2008) in post bailout activity. This move reflects the actual market and not the forced Central Banks' frequent reduction of inter-banking interest rates, created for liquidity and lending boosting.

One can notice that, all recently bailout banks in U.K. utilize higher loan interest rates compared to non-bailout banks. At the same time once a bailout is announced, the other banks in the respective market follow a certain degree of abnormal returns in their share price, but also modifications of their balance sheet structure, that can direct them to undertake more speculative actions for their rehabilitation. Such events though may disturb the equilibrium of those healthy banks. In time, such confidence erosion may bring further problems to the already bailout banks.

The higher the propagation effect to the banking sector, the more severe the healthy banks get affected, should the bailout banks be largely linked through wholesale funding to other local financial institutions (Bank of England, 2007). Another cause for high new interest rates charging customers, despite their temporary character is due to market forces remedy and is correlated to the fact that bailouts are also costly in the model. This is so since the regulators suffer an opportunity cost of capital from not receiving any earnings from bank sales or liquidations. (Acharya and Yoroulamzer, 2007).

10th Lesson (Bailout recuperation time-and investors' money-loop)

Soft budget constraint (SBC) is actually a commitment issue in an economic system.

Modern studies focus on the transitional economies, "lack of financial disciplines in the state sector" (Kornai, 1980, 1992). The unenforceable bankruptcy threats, as well as various subsidies, credits, and price-supports, etc., cause this lack of discipline, recognized by Kornai (1980).

There are some other explanations of the soft budget constraint (Shleifer and Vishny, 1994) which are related to the politics: the reason that a government bails out a firm or a bank comes from the fact that the political price of permitting bankruptcy is too high. Government ownership in a bank at this point seems to be a disadvantage when attracting and retaining good customers and employees. But, in a banking system, the central bank will not just let the local banks go to bankruptcy and then she has to deal with systematical financial crisis.

In any case, the central bank would like to rescue those local banks which are suffering from a huge amount of bad loans, when there is also a prospect that the bank will repay sooner the financial support. This are the cases of USB in Switzerland (Simmons J., Logutenkova E. (2009), RBS and Lloyds in U.K (Mail Online, 2009). and other 10 banks in the U.S. The US Treasury announced that 10 banks had been cleared to repay Government aid because they had raised sufficient capital (Hudson and Judge, 2009).

Yet, thinking of the 5th lesson, a responsible or sustainable way in bailout repayment means that *the bank can repay mandatory convertible bonds or buy-back shares when it's stable enough to fulfill capital requirements*. In this respect it is noticeable to see how the bank that repays the state is viewed by investors as a sign of strength, no matter the depth of the financial aid allocated per GDP. And, indeed, just let's have a look at the total costs these bailouts weigh in the various economies over the years:

I. Latin America 1980s:	
	Argentina 13%
	Chile 20%
II. Mexico 1994-5: 15-20%	
III. East Asia 1997-98:	
	Thailand 42%
	Indonesia 36%
	Korea 20%
	Malaysia 21%
III. The US banking crisis: 2007-2010*	USA: 60%- no .1 GDP provider in the world
(2009/2010)	UK:46% - top 6 GDP provider in the world

Table 2. Banking Sector Bailout Cost/GDP (Sources: Ricardo Hausmann and Liliana Rojas-Suarez, eds., *Banking Crises in Latin America*, 1996; Deutsche Bank Research, *Global Emerging Markets*, December 1998, and author

analysis and estimates 2007-2010.) *But, Western Economies (U.S. Canada and Europe) fell off in World's GDP from 52% to 49.5% during 2008-2009.

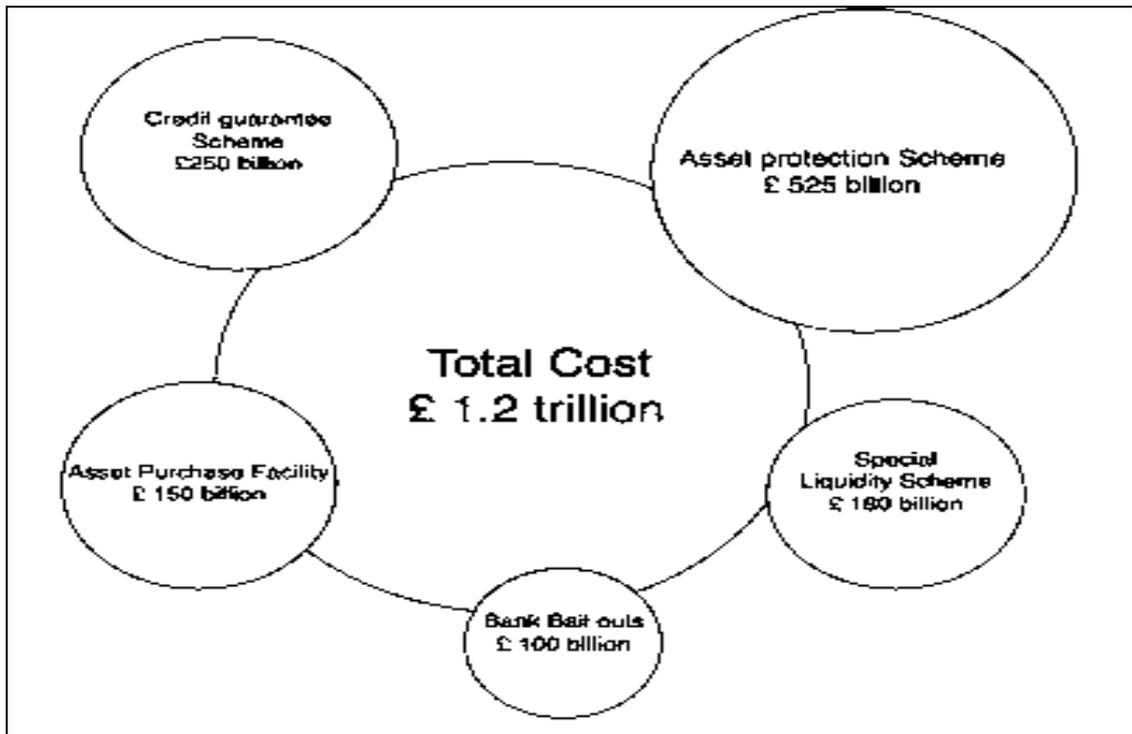


Fig. 1. UK bailout costs in total GDP year 2009. Sources: Ricardo Hausmann and Liliana Rojas-Suarez, eds., *Banking Crises in Latin America*, 1996; Deutsche Bank Research, *Global Emerging Markets*, December 1998.

Then, once emerging economies bounce back more rapidly than mature economies, we can foresee a shorter timeframe for this financial crisis, despite its stretching and depth.

RECOMMENDATIONS TO INCREASE SHAREHOLDERS' VALUE

Each single lesson presented tries to raise a signal on why to keep, when to sell, where to buy shares in the banking industry and which aspects of this industry were most dynamic during the financial crisis. Along with the possible outcomes of bailouts, there is a chance to be able to identify good bailout deals that can eventually be a sound source of profit for investors.

Thereby, a banking institution bailout it does not mean it overlaps with a negative connotation for investors or existing shareholders. Should it turn out that the bank is a new potential target for cash holders and opportunistic investors, the issue is then to protect eventually these organisations from predatory takeovers. In the anticipation of such actions it is not totally mistaken treating bailouts as takeovers which miss the pre-merger or pre-acquisition phase, let alone the integration phase.

Specifically, each potential or existing bank shareholder that is aware of these bailout lessons could take advantage in trying to identify her/his target and compare other options in the market.

In order to optimise their portfolio profitability and safety, investors should act on certain moves at each stage of the bailout as it follows:

1. bailout environment (legislation background, socio-economic connotations to the public, fraud related perceptions and management abuse systems, at the base of building trust and rapport with locals);
2. bailout announcement (lack of pre-bailout information could harm the transaction afterwards), it has to be in line with a clear vision of the future bank strategy and focused on an appropriate time horizon with resilience on short term pressures;
3. bailout procedure understanding (cash vs. bond issuance or guarantee provision);
4. bailout financial commitment (both the government and the banks' commitment in redressing the financial institution, i.e maintaining the private decentralised decision making through professional teams expertise of the both parties involved);
5. bailout managerial board nomination (in case of board change or dismissals) and keep directors independence;
6. identification of the new bailout bank customer base (clientele refocus);
7. bailout strategy rethink (should be analysed and disclosed in a transparent way for feedback purposes as well, also leave room for innovation capabilities to develop that are investment cycle dependent and improve lending practices standards) ;
8. new bank share price recalculation and company revaluation (market flotation and control of rumor selling), analyse short term trading, but pay attention on long term position taking.

Possible Scenarios

The Bank has authorization from its investors to increase its share capital by as much as “x” percent, which wouldn’t allow The Bank to repay the state in full at the current price. Under other scenarios, the government could convert the bonds into shares and sell them on the market, or find investors to buy the mandatory convertible notes. “It would certainly be right for the state to get out from this investment,” “In global business, we still see a lot of insecurity among employees at The Bank as long as the state is involved.”

The Bank’s Tier 1 capital ratio, a gauge of the bank’s ability to absorb losses, stood at 10.5 percent at the end of the first quarter, compared with 14.1 percent its competitor, which declined government assistance. By converting bonds while The Bank trades at or below the minimum conversion price of 18.21, the government would get the highest amount of shares.

The government would have to sell shares at a minimum of about 12.5 to recoup its investment, taking into account interest payments on the bond, according to calculations based on terms of the deal. The state is entitled to receive interest payments of about 750 million per year until the notes mature in June 2011, regardless of the timing of the conversion.

Source: Simmons and Logutenkova (2009)

1. Nevertheless, investors could keep track of the market moves and rumors under Efficient Market Hypothesis (Fama and French, 1970). They may also foresee the share prices Random Walk (Burton, 1973), despite the close probability of Irrational Exuberance (Burton, 2000) in pricing.
2. Yet, some studies have attributed this forecastability to the tendency of stock market prices to “overreact.” DeBondt and Thaler (1985), for example, argue that investors are subject to waves of optimism and pessimism that cause prices to deviate systematically from their fundamental values and later to exhibit mean reversion. They suggest that such overreaction to past events is consistent with the behavioral decision theory of Kahneman and Tversky (1979), where investors are systematically overconfident in their ability to forecast either future stock prices or future corporate earnings.
3. These findings give some support to investment techniques that rest on a “contrarian” strategy, which is, buying the stocks/groups of stocks, that have been out of favour for long periods of time and eluding those stocks that have had large run-ups in the past.
4. When the bailout banks come back in the market, due to governmental economic support and bailout massive schemes, investors tend to trust the bailout firm based on its behaviour prior to the financial crisis rather than the capital input. Thus, shareholders could experience sudden share price augmentation just before the payback of the bailout and other *opportunistic investors could enter the equation, so beware of the bad wolf.*

5. For example, what it is noticeable two and a half years after the beginning of the financial crisis is that a few countries from the Arab Golf (Qatar, UAE, Saudi Arabia), most of them US "partners" support through either government or private equity firms cash injections in the U.S as well as in other E.U. feasible target financial institutions (Reuters, 2009).
6. Higher global credit crisis was exacerbated by excessive complexity of structural credit products (which will resume their demand sooner or later, as complex solutions to investors and risk management problems are always in need, no matter the effort and skills required to analyse and resolve them. Just like junk bonds came back from the crisis of the '80s, we will have the same effect on securitization. New bills will be issued even it will have to be under a simpler securitization form or a more complex one later on. Eventually, a long term solution related to the banking systems is improving risk management techniques through tighter regulation and supervision of risk control mechanisms, providing structured products transparency, while foreseeing the next move in these banks' financial strategy (Mihai Yiannaki, 2008). Innovation and creativity remains a key ingredient as long as it is explained and understood by everyone.
7. However, such regulations should not discriminate between banks, hedge funds and other alternative investment market players in the financial sector. Such a flaw could ruin the other financial intermediaries' competitive power, while redistributing it to banks.

CONCLUSIONS

Why do governments bail out banking systems in distress? There is possible for the central banks to supply liquidity by issuing government securities backed by tax revenue and at the same time to pay attention to the follow up of the situation as well as the redress of the main cause of the bailout (i.e. the financial crisis).

As for the regulators and governments, there is no bigger mistake than to bail out a 'too big to fail bank' neglecting all combined efforts from the industry to help the public cope with social costs or overlooking the social corporate responsibility. There is not much banks can do to stay away from bailouts in financial crisis anyway, just to stay focused on their environment rebuilding while participating to it, focusing on retail banking, with limited investment banking operations, and lean on a long-buoyant domestic market.

At the same time a large alternative and hedge funds market will replace the trust given to banks, but in a less regulated environment as well. Most likely, due to still fierce competition, such funds will be further regulated in their detriment (as they are not a bailout target), but for customer/investor's benefit.

However, bailed institutions, healthy banks and other financial institutions together with the government should carefully resume the monitoring and the reestablishing of the bank supervision at least as per already existing international standards and agreements such as Basel II Accord or the Credit Directives in the E.U. Specifically, the element of control becomes the

wheel when navigating in murky waters while re-analysing all costs incurred, not just book losses, and it should advance the solution to a positive upturn.

Eventually, it is the customer who is affected and has to pay much more not only in terms of tax, but also for obtaining loans from bailout institutions at higher costs, apart from often having restricted access to such products. Not only the customer is a key element in re-establishing share prices through indirect payments, but also by restoring her/his confidence and trust in the banking organization, if not in the whole banking system.

Hence, the investor or even any common customer would be now the most interested in not having bank bailouts in the economy at a first glance, but in time, it proves that bailouts are not that bad if one can provide a sound economic education to the two categories. Eventually, bailout banks can yield investors acceptable returns as soon as, or if the bailout mechanism pays back.

It is important to clearly mention that it would be useful in near future to apply this paper's framework to more aspects in banking, to a larger panel of banks across the Globe as well as on a longer period. In terms of bank performance, the author continues her research by preparing another paper on bank efficiency after the recent credit crunch.

In the next study, there are other financial aspects considered in a comparative relation between healthy banks and bailed out banks whose shares were/are listed. This new paper aims at identifying through financial data analysis first the reasons behind the financial crisis, secondly the bailout need and last but not least the main triggers that made some banks more bailout dependent than others. Such a study will close the loop in the lessons learnt from recent bailouts and it is related to bailouts' ultimate effects related to banks' financial standing.

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PROMOTIONAL TOOLS IN HIGHER EDUCATION: THE CASE OF PRIVATE UNIVERSITIES IN CYPRUS

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Cyprus's higher education system is in transition and the role of the private higher education sector is under review. These internal changes are intended to market Cyprus's educational system more competitively. Our argument is presented in three stages; an initial exploration of the tertiary education market of Cyprus, then a consideration of educational promotional tools and the literature relevant to Cyprus. Finally we comment on the impact this analysis could have on the development of a promotional plan for Private Universities.

Key Words

Promotion, Advertising, Public Relations, Word of Mouth

INTRODUCTION

The operationalisation of marketing in Cyprus's private tertiary education system as 'increasing student numbers' is problematic from both an educationalist's and a marketer's perspective. Although the USA has embraced a specific professional stance as 'enrollment management' and the UK has taken a broader marketing orientation that clearly embraces recruitment neither has adopted a crude sales orientation approach which we detect in Cyprus. These different perspectives lead to differences in implementation for both domestic and international recruitment.

Cyprus's private higher education sector – influenced by both of these international traditions – is facing new challenges in terms of domestic demand, the need to increase international student recruitment, pressure of EU harmonization and the realization of the potential growth due to its geo-political location. This paper uses these insights on the readiness of private higher educational institutions to exploit national and regional markets as Cyprus seeks to become a regional centre of educational excellence. We find the sales orientation is unlikely to build a sustainable future but that it is maintained by short-term institutional goals and inappropriate government policies if growth is their objective.

Our argument is presented in three stages; an initial exploration of the tertiary education market of Cyprus, then a consideration of educational promotional tools and the literature relevant to Cyprus. Finally we comment on the impact this analysis could have on the development of a promotional plan for Private Universities.

We will not be making the case for private versus public institutions in this paper but we follow Zumeta's assessment that nonprofit higher education "is a valuable to the nation" (1992:363) when referring to the USA.

RESEARCH METHODOLOGY

Initially, to capture the domain of the constructs in the research model the authors carried out an extensive literature search on the research issue. Then we performed an exploratory study, in-depth personal interviews with 20 students. The pilot study was performed in an effort to identify the major promotional issues that affect student selection in Tertiary Education. The full scale data collection was performed through a personal survey.

The findings are based on a small-scale survey of 460 students from different nationalities responded to a questionnaire distributed at two privately owned, English speaking institutions in the republic of Cyprus and two in the North site. Students were taking Marketing courses as part of their undergraduate degrees. The questionnaire consisted of both open and close ended questions and in some cases 5 point Likert scales were used as well. A non-probability sampling method was used. The students were surveyed in classrooms as part of the research team teaching schedule. The respondents voluntarily participated with no pressure, penalty or reward used for those who did or did not wish to do so. The data was analyzed using the SPSS package.

THE CYPRUS SITUATION

Cypriots like or at least attend higher education. The demand for higher education has risen considerably over the last 20 years and at present over 60% of all secondary school leavers continue in post-secondary education (Department of Statistics and Research, 1999). This figure is based on a 130% increase in student numbers in tertiary education from 1970/1971 to 1998/1999. This demand has led to the development of an effective private sector which, since the 1970s has had more students than the public sector, mainly in vocational provision (Koyzis, 1989). This has led to special measures introduced in 1987 to accredit private institutions, which has produced the recognition of higher education programs by the government of Cyprus which eventually led to the . The number of places offered by the University of Cyprus and the Public Tertiary Education Institutions of Cyprus and the Technological Education Institutes of Greece has increased in line with qualified demand maintaining an access of supply.

The trend in distribution of students in Cypriot institutions compared to overseas has changed with rapid domestic growth between 1980/1982 and 1990/1991 with corresponding numbers dropping in foreign universities and a reversal in this trend since 1996/1997. (Where the drop seems particularly dramatic is in the number going to Greek universities down from 13% between 1999 and 2000 to only 3% during 2001). The main beneficiary of Cypriots studying abroad is the UK with demand in the USA static and other destinations declining. The most popular discipline is business administration with engineering, medicine and social studies the next most popular.

The Greek Cypriot desire for higher education seems to be as much driven by intrinsic desires for higher studies as well as an instrumentality of employability (Menon 1997). This has led to a mismatch of graduate skills with labour needs, resulting in an oversupply of graduates. This in itself raises the central issue of educational planning of the marketing of alternative routes to

employment other than higher education. This demand management of the Cypriot educational market is too complex to be considered here.

The current structure of higher education is summarized in the Government booklet, 'Higher Education in Cyprus'. The central role is given to the Department of Higher and Tertiary Education within the Ministry of Education and Culture. This Department covers registration, supervision and accreditation of all the private institutions and certain aspects of the University of Cyprus and in association with appropriate other ministries the seven public institutions of non-university higher education. As Koyzis (1997) indicates, European accession and the inevitable harmonization within the European *aquis communautaire* will mean that the higher education sector will have to examine these realities, which may result in repositioning the roles of the public and the private providers. Already two new universities, a technical and an open university, have been approved by the government and accreditation criteria have been devised to turn some of the existing private institutions into universities.

LITERATURE REVIEW ON EFFECTIVE PROMOTIONAL PLANS FOR TERTIARY EDUCATION

In his essay, "Cap, Gown, Mouse," Curry (2003) reports that, "The number of people seeking higher education worldwide has grown exponentially in recent years, rising from 13 million in 1960 to 65 million in 1991. It's projected to hit 130 million by 2010. The developing world is no exception. China, for instance, currently sends 6 percent of its students to tertiary education and hopes to increase that figure to 15 percent by 2010" (p. 102). In fact, the demand for tertiary educational services is increasing more rapidly than developing nations can respond by building universities (Curry, 2003). In response, "Almost all countries have displayed a vigorous expansion in tertiary level education over recent decades. Almost everywhere this expansion of the tertiary level of education is connected with institutional reforms for the selection, management, and channeling of growing masses of students" (Muller & Gangl, 2003, p. 32). Not surprisingly, many tertiary educational institutions are experiencing a number of other challenges today, including identifying how best to accommodate the increasing number of students, mobilize staff and resources, develop relevant curricula and teaching procedures, as well as remaining competitive during a period of skyrocketing costs (Nevin, 2003). According to Wagner, learners at the tertiary level are ". . . more diverse in terms of their backgrounds, interests and career paths. The new challenge is how to adapt program to student demand, rather than the traditional approach of plugging students into programs" (pp. 14-15). Not only are the students themselves becoming more diverse in their educational needs, there remains a fundamental lack of access to tertiary educational facilities throughout the developing world today (Nevin, 2003).

In this environment, a superior approach to the promotion of traditional delivery of tertiary educational services would be to find a place for everyone who wanted higher education as means of enhancing skills and knowledge, improving life-chances and addressing the enormous waste generated by social exclusion (Wagner, 1998). In fact, as Ramcharan (2004) emphasizes, "No country has achieved sustained economic development without substantial investment in human capital" (p. 309). Likewise, as Andersson and Gunnarsson (2003) point out, "The expansion of education not only helps generate technical and professional labor for industrial upgrading, but also enhances opportunities for upward social mobility, including

skills enhancement and higher remuneration" (p. 113). This point is also made by Barr and Crawford (2005) who report, "Education and training have a number of characteristics that make them unusual. Though partly enjoyed for its own sake education is, to a large extent, undertaken because it increases an individual's future earning capacity. It has all the characteristics of a personal investment" (emphasis added) (p. 121).

Because it is such an enormous investment of individual time, resources, and effort, the promotion of a tertiary education should focus on identifying what higher education students want and need to learn today. In this regard, Wagner suggests that, "One possible way of doing this is to work more closely with schools as part of the drive to improve their flexibility and understanding of how students want to learn" (p. 16). This approach is congruent with numerous studies that have shown time and again the inextricable association between higher education and expanded employment opportunities (Langouet, 2002).

There are some important constraints and considerations that must be taken into account in developing appropriate promotional plans for tertiary educational institutions in order to ensure their effectiveness, though. For instance, depending on the geographic setting, a promotional plan for a tertiary educational institution could highlight the additional and more lucrative employment opportunities afforded to graduates. For instance, Shavit, Muller and Tame (1998) maintain that the linking of educational qualifications and occupational achievement is the weakest in less stratified and standardized social systems. According to these authors, "In Ireland -- a weakly stratified system -- employers rely on success in school because this is tested according to nationally standardized procedures, and thus workers' credentials represent their respective rank in the job queue" (p. 7). The geographic setting also affects student access to tertiary educational institutions, and while distance learning programs have afforded some relief, much more remains to be done, especially for rural areas. For instance, Moore and Anderson (2003) report that, "Today, most if not all universities engage in some form of distance education, particularly using information technology to deliver online curriculum and support" (p. 379). According to Alston and Kent (2003), "Declining rural access to tertiary education exacerbates power differentials resulting from globalization and restrains access to the opportunities of globalization and hinders rural revitalization. For many rural young people, restricted access to tertiary education is a significant barrier to the development of a skilled knowledge-focused workforce in rural and remote regions" (p. 5). Moreover, many minorities and indigenous populations remain severely underrepresented in tertiary educational institutions around the world. Therefore, any promotional plan designed to improve access to these students would require reformation of existing policies, appropriate levels of funding, involvement in decision making, and reevaluation of the curriculum (Gair, Miles & Thomson, 2005). For this purpose, one analyst recommends that, "The capacities of these institutions need to be enhanced so that they could respond to society's changing needs in the context of an increasingly globalized world economy" (Ruben, 2007, p. 37).

ANALYSIS OF RESULTS

	<i>Nationality</i>	<i>Valid Percent</i>
<i>Valid</i>	<i>Cypriot</i>	66,0
	<i>British</i>	1,0
	<i>Chinese</i>	2,0
	<i>Middle East</i>	5,0
	<i>Russian</i>	9,0
	<i>Africa</i>	2,0
	<i>Other</i>	15,0
	<i>Total</i>	100,0

Table 1. Nationality

The highest percentage of the sample is Cypriot students, because in all Universities participated, local students consist of the 80% of the student population. The 25% of the Cypriot students interviewed are Turkish Cypriots.

		<i>Valid Percent</i>
<i>Valid</i>	<i>Friends</i>	56,0
	<i>Other</i>	7,0
	<i>Relatives</i>	5,0
	<i>Media</i>	26,0
	<i>Search Engine</i>	4,0
	<i>Online Social Network</i>	2,0
	<i>Total</i>	100,0

Table 2. Where did you hear about the University?

It is very obvious through the results that both local and international students rely on information received through their friends, and the media definitely plays an important role especially for Cypriot students.

Only 7% of the students [Other] said that they first learned of their enrolling college through materials mailed to their home, a college fair, an admissions publication, or a meeting with an admissions counselor from a particular school. These are the sources in which the college or university has some control.

More than 60% said that they first heard of their enrolling college from friends/classmates/word-of-mouth, family members who attend/ed, a friend who attends, family advice, and to a much less degree high-school guidance counselors or high-school teachers. More importantly, a prospective student who learned of a college from a “third party” is nearly four times more likely to apply and twice as likely to enroll.

		<i>Valid Percent</i>
	<i>Yes</i>	<i>77,0</i>
	<i>No</i>	<i>23,0</i>
	<i>Total</i>	<i>100,0</i>

Table 3. *Have you seen an advertisement of the University before registering?*

It is essential that the majority of students are exposed to the Mass Media which might justify the investment made by local Universities. Therefore contrary to reports from Northern Europe and the U.S.A where they claim that this age group is not exposed to the media, it is surprising that Cypriot students are influenced by advertising messages.

		<i>Percent</i>
	<i>Attracted your attention</i>	22,0
	<i>Encouraged you to visit the University</i>	37,0
	<i>Changed the image that you had about the University</i>	8,0
	<i>Influenced you to register at the University</i>	5,0
	<i>Other</i>	4,0
	<i>Total</i>	76,0
<i>Missing</i>	<i>System</i>	24,0
<i>Total</i>		100,0

Table 4. Do you believe that the advertising message...

An interesting effect of the mass media on students is that it attracts the attention of the students but mainly it encourages students to visit the university. We can conclude however, that to attract the attention or a visit does not guarantee enrollment. Therefore we might suspect that the service received during the visit might be a factor that influences decision making. Future research will assist us in establishing such a theory.

		<i>Percent</i>
	<i>Yes</i>	72,0
	<i>No</i>	28,0
	<i>Total</i>	100,0

Table 5. Do you have a friend/ relative who is studying at the University?

Another important issue and justification of previous information received is that the majority of students do have a friend/relative at the university. We might very carefully conclude again that students do prefer to attend a university that they have a friend. Further analysis demonstrated that it is true for both local and international students.

DISCUSSION

Can you think of an industry, outside higher education, where the competition for attention, customers, and money has gotten more fierce in the past decade, yet the “marketing” budgets

have remained relatively modest? These are just some of the challenges for higher education. Yet, surprisingly, little has changed in the promotion of universities. Communication offices continue to churn out news releases and unfortunately, traditional techniques and approaches just are not enough for you institution to be heard above the din.

The present economic crisis will create dramatic changes in the way universities promote themselves. We use the term “promotional marketing” because we are talking about the techniques for reaching the many constituencies of a college or university, not the “product” of an institution such as adjustments in the academic, social, residential and professional programs (which are also probably necessary).

Service versus Publicity

Promotion, and especially promotion that provides a service, can play a great part in increasing the visibility, prestige and status of a college or university. With publicity through the media, colleges and universities are at the whim of a fickle mass media industry. Even the best story about your institution can be sabotaged by breaking news.

The theory is simple: Colleges and universities are at their best when they educate. Educational materials that are made available to already financially strapped high schools demonstrate the institution’s commitment to education, are low-keyed, and result in greater visibility. The materials may be posters, videotapes, computer programs or hand-outs.

Utilizing Alumni

Alumni will need to play a greater role in the promotion of any college or university for practical and economic reasons. A resource that is generally underutilized, the alumni, if handled properly, can be effective players in the marketing and public relations effort. And their service is generally free.

To get the world out more effectively to new audiences, colleges and universities will need to reject the centralized public relations programs of the past where all promotional activities were controlled from the campus. The most successful promotional efforts in the future will involve alumni and parents in target areas developing promotional programs and generating publicity themselves – with gentle oversight from the campus.

Who better to promote an institution in a given city than the community leaders, media mavens, and corporate leaders in a college’s alumni and parent database? A campus communication professional will be better utilized if he or she serves as liaison to task forces in target cities rather than churning out news releases that are eventually lost on the desk of city editors.

Word-of-Mouth Marketing

There may be no more complicated marketing task than unraveling what creates the image of a university. Only a few constituencies really have an image and, therefore, the future of an institution. Reaching these constituencies requires a variety of approaches.

While goods can be promoted well in advertising, the business of marketing an intangible service, like a college education, requires the mobilization of people. For example, it's neither the admissions office nor the guides to universities that alert students to a college. It is a wide variety of people with great or little ties to the college or university. In fact, in a survey produced by George Daphne in June 2008 demonstrated that more than eight of 10 college-bound seniors said they first heard of their heard of their enrolling college from friends/classmates/word-of-mouth, family members who attend/ed, a friend who attends, family advice, and to a much less degree high-school guidance counselors or high-school teachers. More importantly, a prospective student who learned of a college from a "third party" is nearly four times more likely to apply and twice as likely to enroll.

What does this have to do with a college's image? A great deal. A college is only as strong as the enthusiastic volunteer support of its key constituencies. A positive news story in a national media outlet may provide a short term "bump", but it will be the day-to-day references and referrals close to and simply acquainted with the college that will drive the image.

Appreciating the role of the various constituencies and effectively utilizing these groups requires approaching word-of-mouth marketing (or reputational marketing) in a deliberate way.

High Tech Equals High Touch

We are not among those who believe technology and the Internet are going to change the world of communications overnight. Yet we are certain that prospective students, parents of students, alumni, and the public will increasingly expect to pick and choose the information they want electronically. Our studies (in depth interview) show that seven out of 10 prospective students have access to a computer at home. About three out of 10 have access to the Internet form home. These figures are increasing daily.

All institution's Home Page on the Internet will eventually become an institution's "front door" surpassing all but direct mail and word-of-mouth as the way for a prospective student to learn more about your college or university. At last count, we found 15 "search engines" for colleges. Some of these let students set certain preference parameters such as size, major, location, and safety. Once the parameters are set, the service provides a list of downlinks, direct connections, to the college and universities that meet the specified parameters. More systems are on the way. This means your institution will need to know about all the search engines and your institution's place in them.

For the immediate future, complex graphics and video will be less important since most prospective students will access the college's Home Page via telephone modem from their home – a terribly slow form of communication. (Nearby nine of 10 prospective students expect to contact colleges on the Internet from their homes, not their schools.)

Reaching The New Generation

Effectively reaching the new generation of students for student recruitment purposes, and eventually alumni communications, will require a shift from traditional media and messages.

First and foremost, neither mass media advertising nor more strident claims about your institution will be effective. We found that only three of 10 young people believe advertising paints a true picture of a product. This generation is very skeptical about those things that they understand and that includes media and advertising. That is why simplicity and honesty are often more effective and credible in the admissions process – even if it is not as “slick” as the mass media.

The age group hates to be bored. They seek entertainment in everything they do – this not only includes what they expect from college, but how they get their information. One research study actually suggested that the attention span of most adolescents is about eleven minutes – roughly the time between commercials in a typical television show. The need for more exciting and entertaining admissions materials as well as a greater use of interactive techniques will become the status quo of tomorrow.

Interestingly, the day of the college video may already be over. Young people see film and video as the ultimate managed medium. After all, they have seen Jurassic Park but they know dinosaurs no longer exist. Great special effect, however, do. In our own studies, we found that only two of 10 respondents said a college video had a great impact on a student’s decision to apply to a college. These young people know that you can manufacture a happy campus, complete with happy kids, and shoot a tree from a hundred angles to make it look like a forest. Student produced material (even videos) or an Internet “chat room” where prospective students can ask questions of students, faculty and staff will have greater impact for many students than a flawlessly produced video.

Colleges will also need to be more cautious of the visual images. This generation is visually sophisticated. In our in depth interviews, we have found that students often ignore the foreground of admissions photographs and concentrate on the detail in the background. They look for truth in the details, not in the things we want them to see.

The final warning: universities cannot think all students respond alike. In our studies of students concerning admissions communications we found a variety of differences. Science students, for example, prefer telephone call to printed materials. Students interested in business are more likely to prefer electronic contacts such as e-mail or CD-ROM. Students interested in the humanities prefer student written materials to “official materials of the college” .

CONCLUSION

So here are some “predictions” to help give you insight into how your institution might fare in the competitive future. In the new world of higher education marketing, we envision these trends:

- To endear target audiences, the college or university will have to develop highly visible services for high schools, parents, legislators, alumni and other key influencers.
- Positioning a college with other high profile organizations rather than a hit or miss publicity program (through the media) will be the more effective choice.
- Alumni, the last available and credible “low cost” resource, will have to play a larger role in promoting the institution and recruiting students.

- There will be an increased emphasis on “word-of-mouth marketing.”
- Technology will make it possible and also require an effective one to one marketing program.
- Colleges and universities will need to develop a clear position that can be stated simply, effectively and often.
- Publications and communications with prospective students, current students and young alumni will need to reflect this generation’s visual acuity, sophisticated taste in media, and insatiable appetite for entertainment.

These will be the new challenges for promotional marketing of higher education in the future.

Additionally, colleges and universities are, for the most part, leaders in interactive marketing through the Internet. Some colleges already receive as many as one of three applications electronically and the Internet Home Page for many colleges receive as many as 2,000 to 4,000 “visitors” a week. Low promotional budgets have resulted in some of the most creative approaches to promotion found in marketing. When budgets are tiny compared to the task at hand, creativity has to be plentiful resource.

There is a brave new world ahead for the promotion and marketing of colleges, but it is not that colleges are approaching from a standing start. Yet the task is awesome.

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IS THERE NEW EVIDENCE TO SHOW THAT PRODUCT AND INTERNATIONAL DIVERSIFICATION INFLUENCE SMEs PERFORMANCE?*

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Purpose. We examine the joint effect of product and international diversification strategies on the performance of small and medium enterprises (SMEs) in Spain.

Design/methodology/approach. We rely on a panel data of small and medium Spanish manufacturing enterprises over the period 1993-2006, collected from the Spanish Survey of Business Strategies.

Findings. The evidence reveals the existence of a negative relationship between geographic expansion and profitability. Likewise, the adoption of both product and international diversification is not associated with higher performance.

Research limitations/implications (if applicable). A promising avenue for future research is the analysis of firms located in different countries (for example, emerging economies), or the study of this issue considering factors such as the ownership structure (family firms, the role of the State and banks, etc).

Practical implications (if applicable). Our analysis underlines the fact that the distinctive particularities of SMEs –for example, limited resources, lack of previous experience in the adoption of new products and accessing new markets– might constrain diversification as an alternative for firm growth. As a practical implication, Spanish SMEs should overcome their shortcomings before adopting diversification in order to improve the profitability associated with these strategies.

Originality/value. Although Spain's economic structure is highly segmented and made up of mainly SMEs, research on these companies in this country is rather scarce. In particular, the distinctive characteristics of SMEs mean that diversification might have different performance implications than for larger companies. Moreover, our analysis offers new insights compared to previous research, which has traditionally relied on cross-section data.

Key words: Product diversification, international diversification, corporate performance, SMEs.
Research paper

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INTRODUCTION

The corporate development of firms provides strong support for the relevance of the diversification strategy, involving both product and international diversification (Delios, Xu, and Beamish, 2008; Li and Greenwood, 2004; Li and Yue, 2008; Qian, 2002; Shyam, 2009). Although this topic has been extensively researched, our knowledge on the relationship between product or/and international diversification strategies and corporate performance is still limited (Geringer, Tallman, and Olsen, 2000; Geyikdagi and Geyikdagi, 1996; Kim, Hoskisson, and Wan, 2004). Moreover, research has traditionally focused on large and well-established firms in industrialized countries (Dastidar, 2009; Hitt, Hoskisson, and Kim, 1997; Mayer and Whittington, 2003; Ruigrok and Wagner, 2003), with a general conclusion being that the impact of these strategies on corporate performance is unclear (Datta, Rajagopalan, and Rasheed, 1991; Grant, Jammine, and Thomas, 1988; Hoskisson and Hitt, 1990).

In contrast with the findings on large corporations, small and medium enterprises (SMEs) are generally characterized by the lack of both resources for product development and managerial talent in international expertise (Hitt, Hoskisson, and Kim, 1997; Qian and Li, 2002; Ruigrok and Wagner, 2003). Accordingly, the distinctive characteristics of SMEs mean that diversification might have different performance implications than for larger companies (Lu and Beamish, 2001). This has led us to analyze the joint effect of product and international diversification strategies on the performance of a sample of small and medium Spanish manufacturing enterprises over the period 1993-2006. In so doing, we rely on a panel data of firms that offers new insights compared to previous research, which has traditionally relied on cross-section data (Wiersema and Bowen, 2008).

An additional motivation for our research is that although Spain's economic structure is highly segmented and made up of mainly SMEs - 99.87 percent of existing firms are SMEs (according to data from the Central Business Directory of the INE in 2003) - research on such issues in this country is rather scarce (Galan, Gonzalez, and Zuñiga-Vicente 2007; Ramirez and Espitia, 2001, 2002; Santalo and Becerra, 2006).

Finally, while literature on strategy has generally ignored the differences between nations and temporal contexts (Geringer, Tallman, and Olsen, 2000, p. 54), our analysis draws upon specific new contextual data, in line with recent studies (Hitt *et al.*, 2006; Wan and Hoskisson 2003), which allows us to cover a recent timeframe in which firms in Spain are facing new challenges in their expansion (for example, technological change, globalization). Thus, our analysis complements earlier works on the effect of diversification strategies on corporate performance. In short, the relevance of our analysis stems from the fact that, as noted by several authors (Ramanujam and Varadarajan, 1989; Simmonds, 1990; Simmons and Lamont, 1996), both the timeframe and the sample dependent nature of our cumulative understanding of diversification-performance relationships constitute an important challenge for researchers.

Our results reveal the existence of a negative relationship between geographic expansion and profitability. In addition, the adoption of both product and international diversification is not associated with higher performance. Our interpretation underlines the fact that the distinctive particularities of SMEs (for example, limited resources, lack of previous experience in the

adoption of new products and accessing new markets) might constrain diversification as an alternative for firm growth. As a conclusion, Spanish SMEs should overcome their shortcomings before adopting diversification in order to improve the profitability associated with these strategies.

The paper is organized as follows: the second section provides a brief review of the literature on the diversification-performance relationship; the third section presents the methodology applied; the fourth section offers the most relevant results and the last section concludes.

THEORETICAL FOUNDATIONS

Product and International Diversification: Their Effect on Performance

For many years scholars have studied the relationship between product and international diversification strategies and performance separately (for example, Contractor, Kundu, and Hsu, 2003; Kim, Hoskisson, and Wan, 2004; Palich, Cardinal, and Miller, 2000). Nevertheless, recent studies have also tackled the effects of both strategies on firm performance (for example, Geringer, Tallman, and Olsen, 2000; Hitt, Hoskisson, and Ireland, 1994; Sambharya, 1995). Given that there are similarities between the analyses of the impact of these two strategies on corporate performance, the combined effect of the entry into new product lines and into new geographical areas is expected to have some influence on performance independently of the individual impact (Geringer, Tallman, and Olsen, 2000; Tallman and Li, 1996): "Including both product and international diversification in a study enhances the overall understanding of firms' diversification strategies and how they may affect performance" (Kim, Hoskisson, and Wan, 2004, p. 618-619). Thus, our focus in this work is to provide new insights into the performance implications stemming from firms simultaneously expanding their product and geographic scope.

Firms adopting both product and international diversification may perform better than firms that do not due to the greater opportunities for achieving synergies by leveraging resources (for example, distribution channels, brand equity). As a result, the firm will gain economies of scope across multiple product portfolios and geographic markets. For this reason, both strategies generally have a positive impact on a firm's performance (Chang and Wang, 2007; Delios and Beamish, 1999; Kim, Hwang, and Burgers, 1993). The literature predicts that prior adoption of a product diversification strategy provides experience on managing multiple product-markets, which can be exploited in international markets to achieve positive interaction (Hitt, Hoskisson, and Kim, 1997).

In spite of these benefits, simultaneous expansion into new products and countries might also imply a downturn in performance. The reason being that these strategies may be used by managers to pursue their own personal goals (for example, reduction of employment risk, status, compensation) at the expense of the firm's profitability and growth (Kim, Hoskisson, and Wan, 2004; Seth, Song, and Pettit, 2000). Furthermore, greater coordination is needed when a firm's operations expand into new products and international markets, which in turn may lead to cost inflation (Chang and Wang, 2007; Hoskisson and Hitt, 1990; Jones and Hill, 1988; Williamson, 1985). Finally, diversification may be costly for firms when bridging the gap between internal

corporate settings and the external environment: when product-diversified firms also expand internationally, differences in culture, government regulations, economic development or currency fluctuations between countries may also have some impact on their performance (Chang and Wang, 2007; Wan, 1998).

As already explained above, whereas most prior research on growth by diversification has focused on large firms, our analysis deals with Spanish SMEs, rendering it important to consider the particularities that may help to explain the adoption of product and international diversification activities by these types of companies.

On the one hand, SMEs generally have fewer resources than larger companies (Bloodgood, Sapienza, and Almeida, 1996; Lu and Beamish, 2001, 2006). For this reason, although diversification may improve their performance by exploiting synergies amongst businesses and by obtaining economies of scale and scope (Delios and Beamish, 1999; Markides and Williamson, 1994), smaller companies are expected to be less likely to achieve scale economies and, therefore, less likely to improve their performance. Likewise, the lack of information and experience that many small entrepreneurs have regarding products and markets can constrain their diversification strategies (Westhead, Wright, and Ucbasaran, 2001), particularly when the new markets abroad are radically different from the original markets (Lu and Beamish, 2001).

On the other hand, other distinguishing characteristics of SMEs may lead us to regard product diversification and internationalization as important ways of improving performance. Since SMEs are typically less rigid and bureaucratic than larger corporations, their advantages in terms of organizational flexibility or innovation may allow them to better develop new products and/or access new markets (Pett and Wolf, 2007; Qian, 2002). Furthermore, many SMEs are owner-controlled or managed with the owner's interests closely aligned with those of the firm (Pett and Wolf, 2007, p. 4). Indeed, founders themselves own and manage such firms (Lu and Beamish, 2006). Thus, because managers are less likely to diversify in order to uphold their own self-interest (growth and reduction of their personal employment risk), the expansion into new products and markets might be associated with better performance.

Based on the previous arguments, we suggest the following hypothesis:

Hypothesis 1: The joint effect of product and international diversification affects the firm's performance.

METHODOLOGY

Sample

We use a large firm-level data panel compiled by the Spanish Ministry of Science and Technology since 1990: the Survey of Business Strategies (ESEE) for the years 1993 to 2006. The ESEE covers a wide range of Spanish manufacturing SMEs operating in all industries. The sample is representative of Spanish manufacturing firms with between 10 and 200 employees (SMEs); it is probabilistic and stratified by industry and firm size. A number of firms have been eliminated from the original sample, most of them for lack of relevant data (product lines, foreign markets, etc). Thus, our final dataset is an unbalanced data panel of 16,839 (firm-year) observations (and 2,446 companies).

Variables

Corporate Performance (Dependent Variable). While previous literature has considered both accounting-based (for example, growth, profitability) and market-based measures (for example, risk) of corporate performance (Palich, Cardinal, and Miller, 2000), we focus on two measures of financial performance (Colpan, 2006; Geringer, Tallman, and Olsen, 2000; Kim, Hoskisson, and Wan, 2004; Sambharya, 1995; Tallman and Li, 1996): ROA (Return on Assets) and ROS (Return on Sales) - see Geringer, Beamish, and daCosta (1989); Lu and Beamish (2001); and Palich, Carini, and Seaman (2000). These are the only measures of performance that can be computed with the dataset at hand. In order to avoid potential endogeneity problems and facilitate causal inference, we chose a one-year lag between the independent and dependent variables (Geringer, Tallman, and Olsen, 2000; Lu and Beamish, 2004).

Product Diversification (Independent Variable). There are several definitions of product diversification (see, for example, Ramanujam and Varadarajan (1989) or Hoskisson and Hitt (1990)); both continuous measures - such as the entropy measure (Palepu, 1985) or the Herfindahl index (Berry, 1974) - and categorical measures - such as Rumelt's approach (1974). In our analysis, we use a dummy variable to indicate whether a firm diversifies (it equals 1 if the firm diversifies, either through related or unrelated diversification, and 0 otherwise), since data on continuous measures for diversification are not available in the ESEE.

International Diversification (Independent Variable). Internationalization is defined as "a strategy through which a firm expands the sales of its goods or services across the borders of global regions and countries into different geographic locations or markets" (Hitt, Ireland, and Hoskisson, 2007, p. 251). A dummy variable is used with a value of 1 if the firm has expanded its activities towards foreign markets, and 0 otherwise.

Control Variables. Recent studies recommend controlling a number of variables that are likely to have an impact on the firm's performance (Chang and Wang, 2007; Geringer, Tallman, and Olsen, 2000; Kim, Hoskisson, and Wan, 2004). In our analysis, we include the following control variables:

Firm Size: it was operationalized through the logarithm of total sales, in line with previous studies (Kim, Hoskisson, and Wan, 2004; Tallman and Li, 1996; Wan, 1998).

Leverage: the percentage of long-term debt over total assets was used to measure this variable. Prior works showed that leverage is likely to affect corporate performance (Delios and Beamish, 1999; Geringer, Tallman, and Olsen, 2000; Tallman and Li, 1996).

Liquidity: we use a standard measure of liquidity - the current ratio; i.e., the ratio of current assets to current liabilities.

Research and Development Activities (R&D): we use a dummy variable indicating whether the firm develops R&D activities. Some studies predict a relationship between a firm's R&D effort and its performance (Colpan, 2006; Lu and Beamish, 2001). For instance, R&D activities provide unique advantages in domestic and international markets for companies and may therefore result in superior performance (Chang and Wang, 2007; Delios and Beamish, 1999).

Market Demand: demand changes are additionally viewed from an economic perspective as a basic determinant of performance. We measured the trend of demand through a set of dummy

variables reflecting whether the market addressed by the company has enlarged, remained constant or decreased, as well as through a dummy variable which shows whether the market addressed by the firm is in recession. Finally, we also include the log transformation of the firm's use of production capacity.

Industry Effects: several dummy variables are included which represent the industry to which the firms belong (Kim, Hoskisson, and Wan, 2004). The literature suggests that differences between sub-industries may lead to different corporate performance (Chang and Wang, 2007; Delios and Beamish, 1999; Grant, Jammine, and Thomas, 1988).

Time Trend: we also included dummy variables for each year of observation, since previous studies have indicated that the consequences of product and international diversification may vary over time (Chang and Wang, 2007; Geringer, Tallman, and Olsen, 2000).

Method

To gain confidence in the relationship between joint product and international diversification and corporate performance, it is necessary to isolate the effects of these strategies on the firm's subsequent performance. This will allow us to check whether or not expansion into new products and markets in the past (i.e., in the previous year) has any impact on profitability in the current year.

The simplest approach to address this issue is to regress performance on the diversification variables (both product and international diversification). However, unobserved organizational attributes may lead to bias in the estimation of the performance impacts of these strategies. For instance, management decisions will affect the implementation of diversification decisions, the risk arising from the latter and numerous strategic operational procedures. All of these decisions will have some impact on how efficiently the diversification strategies are managed, and as a result will affect firm performance. Moreover, estimates of the coefficients on diversification variables will be biased if the error term is correlated with these diversification variables. Firms with high performance due to unobservables - such as unmeasured inputs, differences in input (or output) quality, differences in technology and management decisions - may show a greater tendency to diversify because such firms may be better able to invest in these strategies. The converse might also be true. Firms with low profitability due to unobserved characteristics may invest more in diversification, given that the investment may serve to raise performance. As a result, Ordinary Least Squares (OLS) estimation may generate biased parameters. It is therefore necessary to model unobserved attributes statistically. Given that several sequential (yearly) observations of the same firm are recorded in the ESEE, unobserved variables can be eliminated by specifying a fixed effects or a random effects model. In our case, fixed effects estimates are preferred to random effects estimates¹⁹⁶.

¹⁹⁶ We ran a Hausman test to choose between fixed and random effects models (results are not shown but are available upon request). This tests the null hypothesis that the coefficients estimated by the random effects estimator are the same as the ones estimated by the fixed effects estimator (see Hausman, 1978).

More specifically, given the longitudinal data on a firm's corporate performance, the effects of product and international diversification observed for firm i at moment $t-1$ on performance at moment t can be modeled as follows:

$$\text{Ln}(P_{it}) = Z_{it-1} \alpha + \lambda_i + \varepsilon_{it} \quad (1)$$

where P_{it} is firm i 's performance associated with the current year; Z_{it-1} is a vector of observable variables associated with the previous year, which may influence the firm's performance in the current year; λ_i is a time-invariant firm-specific error that captures the effects of unobservable characteristics; and ε_{it} is assumed to have constant variance and to be uncorrelated across individuals and time. The possible correlation between unobservables and observables is thus accounted for in the estimation of the parameter of interest, α .

Results

Table 1 presents means and standard deviations of the variables included in the present work.

<i>Variable</i>	<i>Mean</i>	<i>Std. Dev.</i>
ROA (%)	14.4620	16.49
ROS (%)	9.5926	11.34
Product diversification (1=yes)	0.2086	0.41
International diversification (1=yes)	0.4524	0.50
Product*International diversification (1=yes)	0.1067	0.31
Log (Sales)	17.2109	2.09
Leverage	0.1209	0.15
Current ratio	15.4048	53.96
R&D (1=yes)	0.6162	0.49
Capacity (%)	82.5201	14.35
Share (dummy variables):		
Increasing	0.2878	0.45
Constant	0.5880	0.49
Diminishing	0.1242	0.33
Recession (1=yes)	0.1691	0.37
Industry (dummy variables):		
Meat Products	0.0287	0.17
Tobacco and Food	0.0994	0.30
Drinks	0.0191	0.14
Textile Products	0.0983	0.30
Leather and Shoes	0.0292	0.17
Word Products	0.0265	0.16
Paper Products	0.0318	0.18
Publishing and Graphic Arts	0.0522	0.22
Chemical Products	0.0713	0.26
Plastic materials and Rubber	0.0567	0.23
Non-metallic minerals	0.0691	0.25
Metallurgy	0.0352	0.18
Metallic Products	0.0976	0.30
Machinery & mechanical equipment	0.0754	0.26
Office machinery & computing equipment	0.0150	0.12
Electric machinery & equipment	0.0568	0.23
Motor vehicles	0.0489	0.22
Other transportation equipment	0.0183	0.13
Furniture	0.0483	0.21
Other manufacturing industries	0.0223	0.15
Number of observations	16,839	
Number of firms	2,446	

Table 1. Main Descriptive Statistics. Source: Survey of Business Strategies (1993- 2006).

Table 2 and Table 3 show results for the interaction effect of product and international diversification on profitability (ROA and ROS). Model 1 is the baseline model that includes only control variables. As can be observed, size and capacity have a significant positive impact on performance, whereas performance is negatively related to recession periods in every specification. In addition, when market share is constant or diminishing, its effect on profitability is worse than when it is increasing. Results concerning ROA also show a negative and significant effect of leverage on profitability. The remaining control variables are non-significant.

	MODEL 1			MODEL 2			MODEL 3			MODEL 4			MODEL 5		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Product diversification	-	-		-0.5383	0.51		-	-		-0.5658	0.51		-0.5390	0.52	
International diversification	-	-		-	-		-1.5088	0.44	***	-1.5164	0.44	***	-1.5010	0.44	***
Product div. *International div.	-	-		-	-		-	-		-	-		-0.1598	0.54	
Log(sales)	3.1006	0.39	***	3.1176	0.39	***	3.1466	0.39	***	3.1648	0.39	***	3.1663	0.39	***
Leverage	-2.9041	1.13	**	-2.9052	1.13	***	-2.8736	1.13	**	-2.8747	1.13	**	-2.8730	1.13	**
Current ratio	0.0006	0.00		0.0006	0.00		0.0006	0.00		0.0006	0.00		0.0006	0.00	
R&D	-0.6574	0.43		-0.6586	0.43		-0.6717	0.43		-0.6731	0.43		-0.6740	0.43	
Capacity	0.0690	0.01	***	0.0689	0.01	***	0.0700	0.01	***	0.0699	0.01	***	0.0698	0.01	***
Share:															
Increasing	-	-		-	-		-	-		-	-		-	-	
Constant	-0.8996	0.30	***	-0.8994	0.30	***	-0.8942	0.30	***	-0.8941	0.30	***	-0.8892	0.30	***
Diminishing	-2.0066	0.48	***	-2.0025	0.48	***	-2.0211	0.48	***	-2.0168	0.48	***	-2.0131	0.48	***
Recession	-1.5648	0.39	***	-1.5633	0.39	***	-1.5459	0.39	***	-1.5443	0.39	***	-1.5455	0.39	***
Constant	-	-		-	-		-	-		-	-		-	-	
σ_u	41.6486	9.96	***	41.6022	9.96	***	41.7299	9.96	***	41.6816	9.96	***	41.8276	9.97	***
σ_v	14.7544			14.7495			14.6584			14.6517			14.6488		
ρ	13.6849			13.6848			13.6797			13.6796			13.6804		
ρ	0.5376			0.5374			0.5345			0.5343			0.5341		
F- test ^a	F(2445, 14356)= 3.73 Prob≥ F = 0.000			F(2445, 14355)= 3.72 Prob≥ F = 0.000			F(2445, 14355)= 3.73 Prob≥ F = 0.000			F(2445, 14354)= 3.72 Prob≥ F = 0.000			F(2444, 14352)= 3.72 Prob≥ F = 0.000		
N. observations	16,839			16,839			16,839			16,839			16,837		
N. groups	2,446			2,446			2,446			2,446			2,445		

Table 2. Coefficient Estimates of Fixed-Effect Model on Return on Assets. ^a Denotes F-test, which provides a test for pooled estimator against the fixed-effects panel estimator. Estimations also include dummies for years (1993-2006). * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Models 2, 3 and 4 provide separate results on the relationship between product and international diversification and performance. The results in these models report that product diversification has a statistically non-significant relationship with performance. In contrast, the coefficient on geographic diversification is significant and negatively associated with profitability. Thus, Spanish firms in our sample are unsuccessful in improving their performance by expanding into new geographical markets.

Analogously, Model 5 tests Hypothesis 1, which suggests that the joint effect of product and international diversification may have some influence on performance. However, the estimated coefficient on the interaction term between product and international diversification is non-significant. Therefore, we find no support for our hypothesis. These findings are in line with previous works (Chang and Wang, 2007; Geringer, Beamish, and daCosta, 1989; Geringer, Tallman, and Olsen, 2000), which also provided evidence on the statistical non-relevance of the adoption of international and product diversification at the same time.

	MODEL 1			MODEL 2			MODEL 3			MODEL 4			MODEL 5		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
<i>Product diversification</i>	-	-		-0.2358	0.32		-	-		-0.2472	0.32		-0.1639	0.33	
<i>International diversification</i>	-	-		-	-		-0.6309	0.28	**	-0.6342	0.28	**	-0.5869	0.28	**
<i>Product div. *International div.</i>	-	-		-	-		-	-		-	-		-0.4977	0.34	
<i>Log(sales)</i>	2.4539	0.25	***	2.4613	0.25	***	2.4731	0.25	***	2.4810	0.25	***	2.4842	0.25	***
<i>Leverage</i>	1.1727	0.72		1.1722	0.72		1.1854	0.72	*	1.1850	0.72	*	1.1908	0.72	*
<i>Current ratio</i>	0.0005	0.00		0.0005	0.00		0.0005	0.00		0.0005	0.00		0.0005	0.00	
<i>R&D</i>	-0.1159	0.27		-0.1164	0.27		-0.1219	0.27		-0.1225	0.27		-0.1254	0.27	
<i>Capacity</i>	0.0435	0.01	***	0.0435	0.01	***	0.0439	0.01	***	0.0439	0.01	***	0.0437	0.01	***
<i>Share:</i>															
<i>Increasing</i>	-	-		-	-		-	-		-	-		-	-	
<i>Constant</i>	-0.4987	0.19	***	-0.4986	0.19	***	-0.4965	0.19	***	-0.4964	0.19	***	-0.4878	0.19	***
<i>Diminishing</i>	-1.3077	0.30	***	-1.3059	0.30	***	-1.3138	0.30	***	-1.3119	0.30	***	-1.3053	0.30	***
<i>Recession</i>	-0.8850	0.25	***	-0.8843	0.25	***	-0.8771	0.25	***	-0.8763	0.25	***	-0.8780	0.25	***
<i>Constant</i>	-	-		-	-		-	-		-	-		-	-	
	30.3726	6.32	***	30.3522	6.32	***	30.4066	6.31	***	30.3855	6.31	***	30.8095	6.32	***
σ_u	10.9311			10.9283			10.9122			10.9088			10.9015		
σ_v	8.6779			8.6781			8.6767			8.6768			8.6767		

ρ	0.6134			0.6133			0.6127			0.6125			0.6122		
F- test ^a	F(2445, 14356)= 5.19 Prob \geq F = 0.000			F(2445, 14355)= 5.19 Prob \geq F = 0.000			F(2445, 14355)= 5.19 Prob \geq F = 0.000			F(2445, 14354)= 5.19 Prob \geq F = 0.000			F(2444, 14352)= 5.19 Prob \geq F = 0.000		
N. observations	16,839			16,839			16,839			16,839			16,837		
N. groups	2,446			2,446			2,446			2,446			2,445		

Table 3. Coefficient Estimates of Fixed-Effect Model on Return on Sales. ^a Denotes F-test, which provides a test for pooled estimator against the fixed-effects panel estimator. Estimations also include dummies for the years (1993-2006). * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ Estimations also include dummies for the years (1993-2006). * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

CONCLUSION

Although diversification strategies (product and international diversification) are becoming increasingly relevant for small and medium sized enterprises, there is still limited evidence on their impact on the latter's corporate performance (for example, Lu and Beamish, 2001, 2006; Qian, 2002). Likewise, there exists a shortage of data on the interaction effect of product and international diversification strategies on corporate profitability (for example, Hitt, Hoskisson and Ireland, 1994; Tallman and Li, 1996), because most of literature has focused on the linkage between diversification strategies and performance separately (for example, Kim, Hoskisson, and Wan, 2004; Palich, Cardinal, and Miller, 2000). Thus, in order to provide new knowledge and develop current theory on this issue, it seems appropriate to study the growth path of SMEs and the relationship between the strategies of these companies and their performance. For this purpose, we have used a sample of small and medium enterprises on a new context (Spain) and a recent time period (1993-2006).

The evidence provided indicates that the expansion of SMEs in Spain towards foreign markets is associated with lower performance. In addition, our results do not support any significant difference in performance when adopting new products and accessing new markets at the same time.

Our interpretation of these findings rests on the notion that SMEs are unlikely to have the resources and capabilities required to successfully access new product lines or geographic areas (Lu and Beamish, 2001). In addition, intense international competition and the co-ordination costs associated with these strategies may reduce the profitability that these companies derive from them. When the domestic market is saturated, SMEs may encounter greater difficulties in using their established connections for further expansion than larger companies (Wan, 1998). Thus, two possibilities arise: on the one hand, SMEs may decide not to adopt these strategies in case they do not eventually gain economic value from the strategies analyzed. On the other hand, given that expanding into new products and markets implies new challenges and involves risks for small and medium enterprises, before implementing these strategies, they need to learn from prior experience and overcome these disadvantages. Likewise, in this setting, government funds may be crucial to help these companies improve their performance.

In interpreting our results, we must underline the context and time period considered in our analysis. In recent years, both the European economic integration process and the wave of privatization experienced in Spain have stimulated product and international diversification for Spanish firms, particularly among large and well-established enterprises (Guillen, 2001, 2005). However, although the trend towards diversification became increasingly widespread in Spain during the 1990s and the beginning of the 21st century (Binda and Iversen, 2007; Galan, Sanchez, and Zuñiga-Vicente, 2005; Galan and Sanchez, 2009), Spanish firms have not yet reached the levels of diversification recorded in other economies (US, France, Germany, Italy, or UK) (Mayer and Whittington, 2003). Thus, it is reasonable to contend that SMEs in Spain are less likely to achieve substantial improvements in performance stemming from these strategies.

This study has several implications. While firms can choose between a product diversification strategy or a geographic expansion strategy in order to improve their performance, advancing in

these two dimensions at the same time may not always be the most profitable alternative. Indeed, it is also the most difficult to implement successfully. Thus, managers must consider several relevant factors (profitability, risk, etc) before developing new products and accessing new international markets.

Finally, although unfortunately the data do not allow to test whether the relationship between corporate performance and diversification strategies is anything other than linear, it may indeed be possible that the impact of product and international diversification on performance may follow a curvilinear or sigmoid form (see, for example, Contractor, Kundu, and Hsu, 2003; Hitt, Hoskisson, and Kim, 1997; Palich, Cardinal, and Miller, 2000; Thomas, 2006). This issue remains open for future research. Another promising avenue for future research is the analysis of firms located in different countries (for example, emerging economies), or the study of this issue considering factors such as the ownership structure (family firms, the role of the State and banks, etc). Moreover, while we have used quantitative measures of performance, it would be interesting to use strategic measures or examine other criteria apart from financial performance (such as, e.g., product innovation) in order to enrich the analysis.

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GLOBAL EVALUATION AND LOYALTY OF LISBON AS A TOURIST DESTINATION – PORTUGAL

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Purpose: this study aims to identify the more relevant factors which influence the global evaluation of Lisbon as a tourist destination, as well the intention to return.

Design/methodology/approach: it was taken PLS – Partial Least Squares approach to structural equations modeling. A survey was carried out on the main Lisbon Visitor Attractions and hotels, in a sample made up of 552 individuals.

Findings: the results show that global quality/price evaluation and cultural perspectives are the main factors to explain the global evaluation of the Lisbon destination. Furthermore, beside a positive global evaluation, the environment safety has a direct and positive impact on the intention to return to Lisbon.

Research limitations/ implications: the study is focused in a specific sample – the visitors of Lisbon, so the results obtained here should be contrasted with those of other International tourist destinations.

Practical implications: ascertaining the main factors of the global evaluation of a tourist destination will make a valuable contribution to the professionals of the destination to enable them to adapt their strategies of positioning, communication and promotion, as well as developing the specific offer to those visitors.

Originality/value: if we take into consideration the growing competitiveness among tourist destinations and the potential that global evaluation measurement represents as a tool of management of destinations, so it is critical understanding the factors which influence the global evaluation of a tourist destination, as well its level of loyalty by visitors.

Keywords: Destination Global Evaluation; Satisfaction; Loyalty; Return; Tourist Destination.

Paper Type: Research Paper.

INTRODUCTION

The importance of understanding the factors determining a tourist destination's ability to compete efficiently in a mosaic of competition (Fallon, 2007), i.e. the ability of a destination to satisfy its visitors' needs, is a critical vector for tourist destinations' managers. From the point of view of Tourism Marketing, the destinations' loyalty is also a core instrument in evaluating the real needs of a tourist destination's visitors. Thus it is vitally important to assess the suitability and efficiency of supply in terms of trip motives, tourist products, facilities, services and programs, which altogether represent the experiences the tourists are offered with.

In this framework, the global evaluation of Lisbon as a tourist destination by its visitors and the probability of their returning and/or recommending it to family and friends is a vital instrument in its management and thus a pre-requisite for its sustainability.

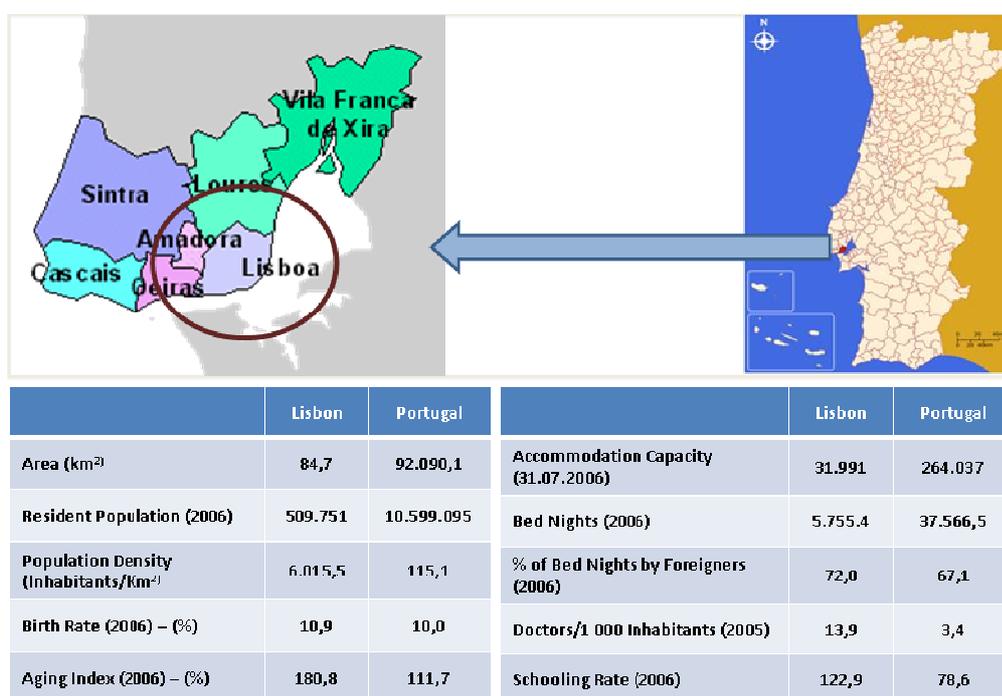
Therefore, this study aims to identify the relevant factors which influence the global evaluation of Lisbon destination and the intention to return.

To satisfy the aforementioned goal, the study is split into six sections. Section two contains a brief picture about Lisbon as a major Portuguese tourist destination; section three provides an overview of the literature to justify the constructs and the theoretical model. The fourth section describes the method used to validate the model, reporting the results in the fifth section. Finally, the sixth section outlines the conclusions and the likely research benefits.

LISBON IN THE TOURIST CONTEXT

Lisbon, the capital of Portugal, located on the River Tagus, has an area of 84.7 km² and a population of 509 751 (Portuguese National Statistics Institute, 2007). The city benefits from an excellent geographical location, from a mild climate all year round, from a wide range of tourist attractions, good international air links and a variety of accommodation options, making it the second main Portuguese tourist destination (the first one is Madeira Island).

According to the Associação de Turismo de Lisboa (2007), between 1995 and 2005, the accommodation supply grew around 113%, the number of foreign guests 68% and tourist receipts around 34.5%. In 2006 Lisbon accounted for 12.1% of Portugal's total accommodation capacity and 15.3% of hotel nights booked. Among the bookings, foreigners accounted for an average of 72.8% in the capital compared to 67.1% nationally (Figure 1).



Fonte: INE (2007) – Lisbon Region Statistical Yearbook, 2006.

Picture 1 – Picture of Lisbon as a Tourist Destination

Overall profits in the hotel trade from 2005 to 2007 were €443 181 255, €497 849 987 and 568 077 924 respectively, which translates into an average annual rise of around 13.2%.

LITERATURE REVIEW

Satisfaction has traditionally been defined as a global affective response to consumption of a service (Westbrook, 1987), and is considered very important due to its role in creating competitive advantages (Mittal *et.al.*, 2005). Highly satisfied customers will be faithful to the brand, will remain as clients for longer, will communicate through word of mouth and will contribute to increasing the supply and sales (Oliver, 1997; Anderson *et.al.*, 1994).

When transposing this perspective to the tourism context, it can be stated that the satisfaction is relevant to the destinations' competitiveness and management (Fallon, 2007), as well as to the suitability of its communication, promotion and segmentation strategies (Lee and Carr, 2004; Yuksel and Rummington, 1998).

According to Moutinho (2000), satisfaction is a complex and multidimensional concepts, deriving from the Latin words *facere* and *satis*, which imply "doing the sufficient". It is generally understood as a post-consumption result, i.e. it represents the evaluation made by a customer after experiencing a good or a service. This means that whenever the result of the experience is positive, thus corresponding to initial expectations, the tourist remains satisfied (Pizam *et.al.*, 1978; Bigné *et.al.*, 2005).

Authors such as Parasuraman *et .al.* (1985) and Reisinger and Turner (2003) postulate that satisfaction is the result of the destination's performance, measured through comparing initially created perceptions and images with the experience of the destination. From this point of view, satisfaction can include subjective perceptions, as well as specific destination or product attributes (Klaus, 1985). Therefore, the data resulting from the study of satisfaction levels identifies the attributes most valued by the destination's visitors, their impact on the destination choice-making and how deeply the destination management strategies match its current and potential visitors' needs.

Truong and Foster (2006) also refer to satisfaction in tourism as the relationship between the tourists' expectations and the destination's intrinsic characteristics.

Along this line of thought, Oliver (1980) postulates as regards the in its dominating expectation-fulfillment paradigm that satisfaction is formed by way of a cognitive comparison of perceived performance of a product or service and the expectations the customer had before the purchase. This means that when the perceived performance exceeds the expectations it causes satisfaction, but when the perceived performance is below the expectations it causes non-satisfaction.

The characteristics of tourism supply are also mentioned as potential factors of satisfaction (Van Raaij and Francken, 1984), mainly when they are coherent with the perceptions, attitudes and values of the visitors (Hughes, 1991; Kosak and Rimmington, 2000). The quality of the product or the service (Crompton and Love, 1995) and the reasons for individual trips (Sirakaya, 2003) are also seen as relevant on the study of the tourism satisfaction.

Another dimension in the study of consumer behavior is loyalty. Consumer loyalty is often recognized as being a strategic objective for companies (Reichheld, 1993; Oliver, 1999), as well in the tourism context. This dimension is related to the probability of a tourist repeating visits to destinations, recommending or promoting it near friends and relatives (Bowen and Shoemaker, 1998). It means that loyalty is related to specific behavior demonstrated through the intention to return to a certain tourist destination.

According to Petrick and Sirakaya (2004), consumer loyalty is clearly a critical aspect for firms or destinations because it is more desirable, and less expensive, to retain existing customers than to attract new ones. So, loyalty becomes a fundamental strategic component of a destination region.

On the other hand, loyalty is pursued by the destinations' management as a way of securing the visitors' relationship with the destinations. It consists of the visitors' identification and trust revealed towards the destination. Weiner (2000) states that a loyal customer regularly attributes eventual destination failures to exogenous factors, not to those strictly connected with the service suppliers. Thus the concept of loyalty plays a central role both in global visitor satisfaction and in post-acquisition behaviour. Therefore, the destinations managers' challenge lies in understanding and appropriately using the information obtained about their clients' loyalty (Petrick, 2005).

Loyalty was originally perceived from a merely behavioural perspective, i.e. as a function of purchase frequency or a proportion of market share (Cunningham, 1956). It evolved due to the necessity of an attitudinal perspective to be included, as the results of various studies, such as those in the field of brand loyalty, revealed the difficulty of associating loyalty with mere accounting of purchase frequencies. Nevertheless, neither behavioural nor attitudinal perspectives contain all of the consumer loyalty components, which is why it becomes necessary to add other dimensions, such as cognitive variables (Jacoby and Kyner, 1973).

There seems to be a significant difference between various possible types of loyalty, such as the number of visits paid by first-time visitors as compared to the repeat ones (Opperman, 2000). The author suggests that the consumers of the service should be divided into five specific groups: (i) non-buyer consumer – the one who has not bought the visit to a destination yet; (ii) disappointed consumer – first-time buyer, though with a negative experience; (iii) unstable consumer – first-time consumer with a positive experience, although oscillating among other suppliers; (iv) unfaithful consumer – first-time buyer that can be characterized by a reduced demand for novelty; (v) relatively loyal, loyal and very loyal consumer – the ones who pays a lot of visits, differing in frequency and intensity from previous visits. The above mentioned author believes different types of tourists demand different marketing strategies.

In line with the above information, the global evaluation of a tourist destination depends on various factors, including satisfaction, expectations and the destination's inherent motivational factors. A casual relationship between these factors and the tourists' intention to return to the destination is also established.

METHODOLOGY

The inquiry questionnaire hetero-administrated by the Data Crítica interviewers – a market research company engaged by the Associação de Turismo de Lisboa (the entity responsible for the destination management) – was carried out between May 1 and November 30, 2007, in traditional Lisbon hotel business spots, mainly hotels, as well as the main tourist attractions.

The sample was collected through a process of quota sampling, taking into account visitors' citizenship and final destinations. The weight of each citizenship category was measured through the number of hosts per country, who spent the night in the Lisbon promotional area between 2001 and 2005.

The questionnaire comprises six sessions, namely: (1) the reasons for visiting the region; (2) the Lisbon region's attributes evaluation; (3) the region's global evaluation; (4) the probability of returning to the Lisbon region; (5) the expectations fulfilment; and (6) the socio-demographic characteristics of the surveyed persons.

Each item of the factors of evaluation of Lisbon region and overall evaluation was recorded on a 10-point scale (1 = minimum, 10 = maximum). The 'probability of return' question was recorded on a 4-point scale, and the 'expectations fulfilment' question - on a 5-point scale. All the constructs are formed by a single item, apart from the environment safety construct (5 items), and the Cultural construct (4 items). 848 questionnaires were collected, of which 552 were completed in their entirety as regards the studied variables, representing 65% of the global sample.

Besides the descriptive statistics, the PLS (Partial Least Square) technique was applied, in order to estimate the path coefficients of the structural equations model. This technique is based on an iterative combination of principal components analysis and regression, and it aims to explain the variance of the constructs in the model (Chin, 1998).

In terms of advantages, the PLS simultaneously estimates all path coefficients and individual item loadings in the context of a specified model, and as a result it enables researchers to avoid biased and inconsistent parameter estimates. In fact, PLS models are based on prediction-oriented measures, unlike the covariance fit like covariance structure models developed by Karl Jöreskog (or the LISREL program developed by Jöreskog and Sörbom). The re-sampling Bootstrap process was applied to analyze whether the structural paths are or are not significant, and the Blindfolding technique was used to calculate the Q^2 indices.

RESULTS

As for the socio-demographic characteristics of the respondents, 64.7% are 45 years old or above, of whom 26.8% are over 65. 22.1% are between 45 and 54, and 15.8% are between 55 and 64 years old. Only 7.6% of the surveyed people are between 15 and 24, and 27.7% are between 25 and 44. In terms of academic degree, 76.9% of respondents have a high formal level of education, considering that 28.6% state to have attended higher education, Bachelor's Degree (25.5%) and Master Degree and PhD (22.8%). 42% are married, 19.9% are widowers and 19.4% are single or divorced. Most of respondents (52.5%) are male.

<i>Age</i>	<i>%</i>	<i>Education level</i>	<i>%</i>	<i>Marital status</i>	<i>%</i>	<i>Gender</i>	<i>%</i>	<i>Country of residence</i>	<i>%</i>
15 to 24	7.6	Elementary	2.4	Single	17.8	Male	52.5	In the EURO 27	76.3
25 to 34	13.9	Secondary	11.2	Married or together	42.0	Female	47.5	Russia	0.2
35 to 44	13.8	Academical Frequency	28.6	Divorced/or separate	19.4			Norway	2.2
45 to 54	22.1	Academical Degree	25.5	Widower	19.9			Switzerland	2.4
55 to 64	15.8	Post-Grad. degrees	22.8	Don't answer	0.9			Brazil	1.4
65 +	26.8	Don't answer	9.4					Canada	5.8
								USA	8.9
								Japan	0.2
								Australia	1.3

Table 1. Study Technical Sheet.

As for the mother country, the majority of the respondents are European (76.3%), followed by the Americans (8.9%) and the Canadians (5.8%). Most of the nationals of the 27 EU countries come, in decreasing order, from Spain, Germany, Italy, United Kingdom and France. They intend to stay an average of six nights in the Lisbon Region.

As for the reasons for visiting the Lisbon Region, the majority of respondents (over two-thirds) list them as holidays, recreation and leisure, visits to family and friends (11.2%) and business trips (10.7%). Only 1.3% participates in congresses, fairs or business.

<i>Construct</i>	<i>Mean (Std. Deviation)</i>	<i>Item loading</i>	<i>Cronbach's alpha</i>	<i>AVE*</i>
<i>Cultural</i>			0.8742	0.6618
<i>Monuments, museums and attractions</i>	7.9 (1.1)	0.850		
<i>Night life</i>	7.8 (1.0)	0.748		
<i>Cultural offer</i>	7.8 (0.9)	0.850		
<i>Commercial offer</i>	7.8 (0.9)	0.772		
<i>Attractions diversity</i>	7.7 (0.8)	0.842		
<i>Environment safety</i>			0.9011	0.7124
<i>Traffic</i>	7.4 (1.3)	0.833		
<i>Absence of noise</i>	7.5 (1.1)	0.849		
<i>Quality of the air</i>	7.6 (1.0)	0.904		
<i>Safety</i>	7.6 (0.9)	0.774		
<i>Cleanliness</i>	7.6 (1.0)	0.855		

Table 2. Measurement Results-PLS analysis

Good consistency can be observed of both scales (environment safety $\alpha=0.9011$; cultural $\alpha=0.8742$); the weight of each of the factors, which varies between good and laudable (Hutcheson and Sofroniou, 1999), and there is convergent validity, as the AVE indices surpass 0.5.

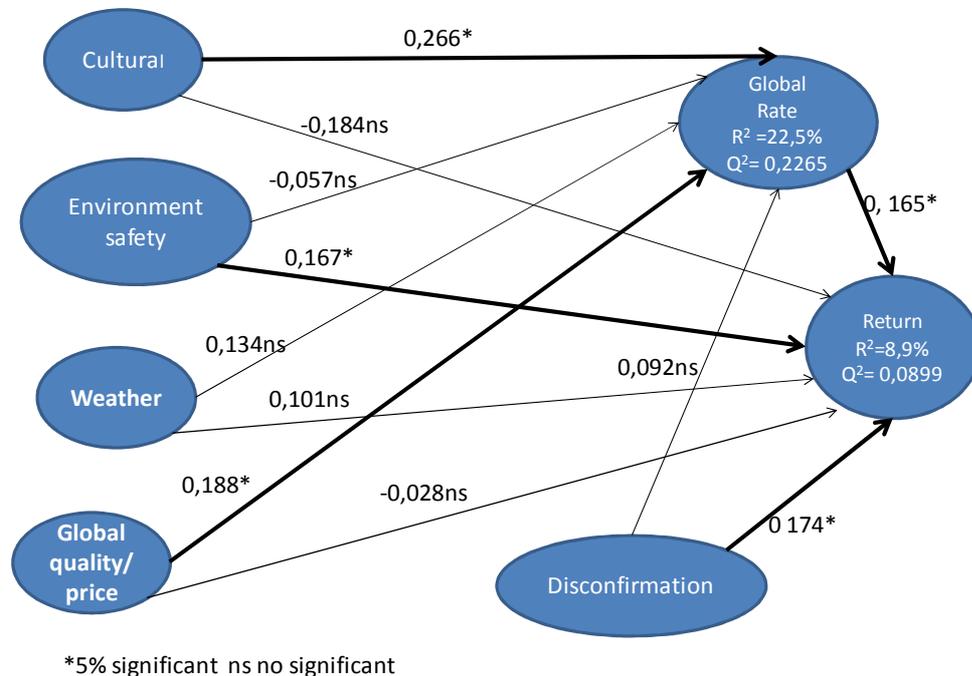


Figure 1: Structural Results

Figure 1 allows us to verify that the Global rate antecedent factors explain its variation only in 22.5% of the sample and the intention to return is only explained by the variables considered by 8.9% of the respondents. The culture factor (with 5 items) has a significant influence on the global evaluation of the tourist destination, but not on the intention to return. The environmental safety variable influences the intention to return positively, but does not exert a significant effect on the global evaluation of the Lisbon destination. The climate does not exert any significant impact. The expectations fulfilment (non-fulfilment) contributes significantly to the intention to return. The higher the global evaluation of the Lisbon tourist destination the higher is the tendency to return. The quality/price ratio is important for the destination's global evaluation.

Tenenhaus et al. (2005) propose the geometric mean of the average communality (outer mode) and the average R² (inner model) that is limited between values of 0 and 1 as overall goodness of fit (GoF) measures PLS (Cross validated PLS GoF). The index for this model is 0.4, which is not high and reveals that the model should be improved.

CONCLUSIONS

This study constituted a first attempt to apply the PLS technique to a set of latent variables related to the Lisbon destination.

In overall terms, the average classifications ascribed to the factors and items considered antecedent to the Global rate latent variable are high, which shows that the surveyed tourists have a good perception of the Lisbon tourist destination. However, the global evaluation of the

tourist destination (global rate) and of the intention to return is scarcely explained by the variables considered in the current study.

Therefore, other explanatory variables should be considered in future studies. Nevertheless, cultural aspects (Monuments, museums and attractions, Night life, Cultural offer, Commercial offer, Attractions diversity) and the quality/price ratio are important for the global evaluation of the Lisbon tourist destination, while the feeling of security, the absence of noise, the cleanliness, the traffic control and the expectations fulfilment are more important for the tourists' returning in the future.

The tourists' favourable perception of the feeling of security in Lisbon can present a surplus value compared to other destinations, to be applied in the Lisbon marketing communication. Also, an ongoing effort to reduce noise and control traffic should not be ignored.

These are the aspects to be paid attention to by the Associação de Turismo de Lisboa, the shopkeepers and the overall population living and working in Lisbon, if it intends to retain its place as the tourists' favourite destination.

The suggested model might constitute an important tool for public and private organizations involved in the tourist industry. The two constructs mentioned elsewhere seem to yield valuable clues for the definition of segmentation and positioning strategies by tourism professionals and may even facilitate the development of adequate supply for the needs of Lisbon visitors.

In future studies, other variables contributing to explain the destination's global evaluation and the intention to return should be considered. This also applies to other items, in order to better seize the different components which form the concept of loyalty to a tourist destination.

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METHODOLOGY FOR THE IMPLEMENTATION OF E-BUSINESS SOLUTIONS IN SMES

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Purpose - To provide a methodology for the implementation of e-Business solutions in small and medium enterprises. The main goal of this methodology is to provide SME companies with ICT solutions that helps them automate their processes for increasing value creation potential.

The Approach - This paper integrates different well known methodologies used for process management, change management as well as international standards for process mapping and modelling.

Findings - The methodology seeks on one hand to bring about a "proof of concept" about ICT and e-business adoption in SME companies and on the other hand to provide support for the transition of firms to an e-business vision that would allow them to face the challenges of the Digital Economy.

Research limitations/implications - The methodology framed needs to be supported by empirical data in order to prove its efficiency. Further research studies we are undertaken are going to accomplish this limitation.

Practical implications - A comprehensive and structured framework that allow to find out in which level of ICT use the firms actually are positioned and then to define those processes and critical areas where ICT tools can increase the business value.

Originality/value - This paper offers a methodological framework that links together engineers and managers to define in collaboration the right starting point and the right way to follow for adopting and using ICT tools and applications for business transformation and value creation

Keywords: *eBusiness, SME, Change management, business process reengineer.*

INTRODUCTION

The increasing rate of technological diffusion are transforming radically the economic and social landscape. They are changing rules, laws and factors which guide the competition among enterprises. The sustainable competitive advantage comes from the capacity to continuously improve, innovate, upgrade, and configure resources and competencies to match environmental needs (Eisenhardt and Fabrizi 1995; Feeny and Willcocks 1998).

These trends put forth major challenges especially for small and medium enterprises (SME), which count for about 96% and 99% of total number of enterprises in OECD countries (OECD, 2002). As a matter of fact, SME seems to have an advantage over large enterprises for their agility, flexibility and innovating potential. However, their competitiveness and sustainability in complex environments require the adoption of new business configurations based on the value creating potential of ICT tools and applications. ICT-s could play a major role allowing SME to

expand the potential benefits originating from linking electronically with suppliers, customers, and other business partners, to engage in the wide array of domestic linkages between users and producers and between the knowledge producing sector (universities and R&D institutes) (Meyer-Stamer, 1998, Nadvi, 1995; Nadvi & Schmitz, 1997; UNCTAD, 1998).

Nevertheless, SME potentialities are being constrained by small size, lack of resources, lack of adequate management style, high complexity and risk of innovation, limited ability to identify and work with new customers and suppliers across borders. While large enterprises have done revolutionary steps and improvements toward exploitation and exploration of ICT tools and intangible assets for innovativeness and competitiveness, small and medium enterprises are falling largely behind. They are reluctant on embracing the new technologies and changing the management practices.

In this paper we try to formulate a methodology that guide them toward the use of ICT in a feasible way tailored to their needs.

ICTs FOR SME BUSINESS TRANSFORMATION

Information and Communication Technologies (ICT) offer SME a wide range of possibilities for improving their competitiveness. As Oecd (2002) report argues, the use of ICT and its applications create substantial benefits for firms at intra and inter-firm level. In particular at intra-firm level they contribute on making communication within the firm faster and the management of the firm's resources more efficient, they increase the efficiency of business processes by the use of seamless transfer of information through shared electronic files and networked computers. At inter-firm level, benefits of ICT are related with the reduction of transaction costs and increased speed and reliability of transactions; the reduction of inefficiencies resulting from lack of co-ordination between firms in the value chain (OECD, 2002) as well as the reduction of information asymmetries between buyers and suppliers and the creation of closer relationships among trading partners (Moodley, 2002).

However, if we analyze the present situation of the introduction and use of information technologies in SME, we can see that a vast majority of enterprises from all sectors and countries uses computers and has Internet access. But in a lot of cases they are used only for basic functionalities, and not to improve internal and external communication, or to activate new information services.

As the figure shows smaller companies still struggle with the requirements of getting digitally connected with their suppliers and customers. If they cannot cope with the requirements of the digital economy, however, they risk being eliminated from the value systems that tend to be orchestrated by large firms (eBbusiness Watch, 2008).

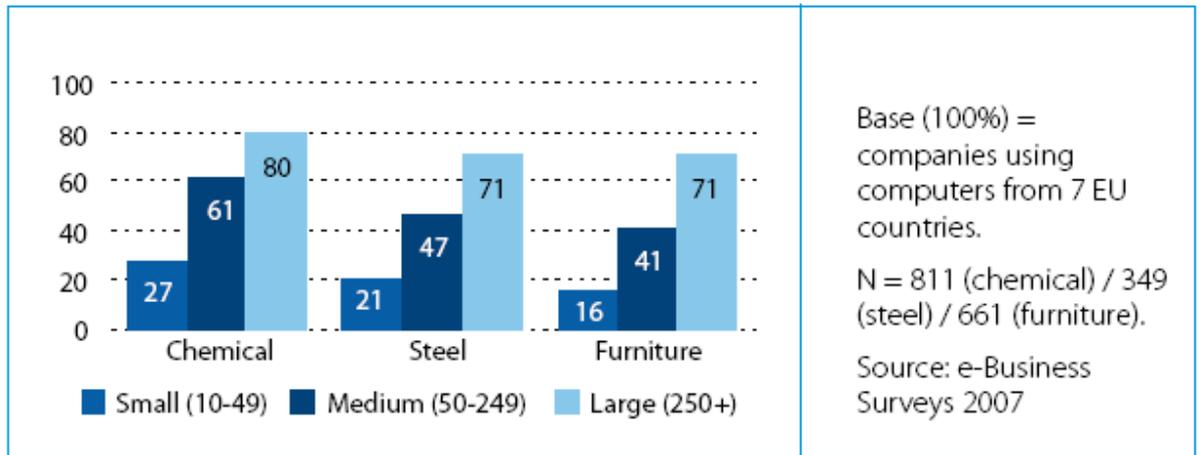


Figure 1 - % of companies with an ERP system (by sector and size, 2007)

As argued by Fulantelli and Allegra (2003) developing a full awareness of the huge potentials of ICT is the starting point for every attempt to introduce ICT-based processes in a company. Forcing the introduction of technology is one of the main reasons behind the failure of several attempts of the SMEs to become e-business organizations or simply to use ICT effectively for new services.

Venkatraman (1994) model of five levels of 'IT - induced business transformation' is a good starting point to analyze the firms's positioning on the use of ICTs firms for then defining the best approach that guide firms toward the efficient use of ICT, tailored to their needs.

The higher levels of business transformation offer potentially greater benefits but require corresponding changes in organisational structure and in the role that ICTs have to play within the business processes.

The five phases of Venkatraman model are:

The phase '**Localised exploitation**' is the one that requires the lowest level of business transformation and the lowest expected benefits. It involves the employment of standard IT applications with minimal changes to the organisational structure of the firm.

In the **internal integration** level firms can start to build the internal electronic infrastructure which allows the integration of various tasks, processes and functions within an organisation and then uses this platform to integrate these intra-organisational business processes. Venkatraman (1994) argues that this is an evolutionary step from 'Localised exploitation' and a shift to the third level in this model represents a fundamental shift to a more revolutionary use of information and communications technologies within the business process.

Business Process Redesign (BPR) phase requires the uses of ICT as a lever for designing new business procedures rather than simply overlaying the technology on the existing organisational framework.

The Business Network Redesign involves the use of ICT to step beyond traditional intra- organisational boundaries to include clients, suppliers, and changes the competitive environment by introducing a need for greater co-operation between trading partners.

The fifth level, **Business Scope Redefinition**, arises once the network is in place. This level addresses the question 'What role, if any, does ICT have to play in influencing business scope and the logic of business relationships within the extended business network?'

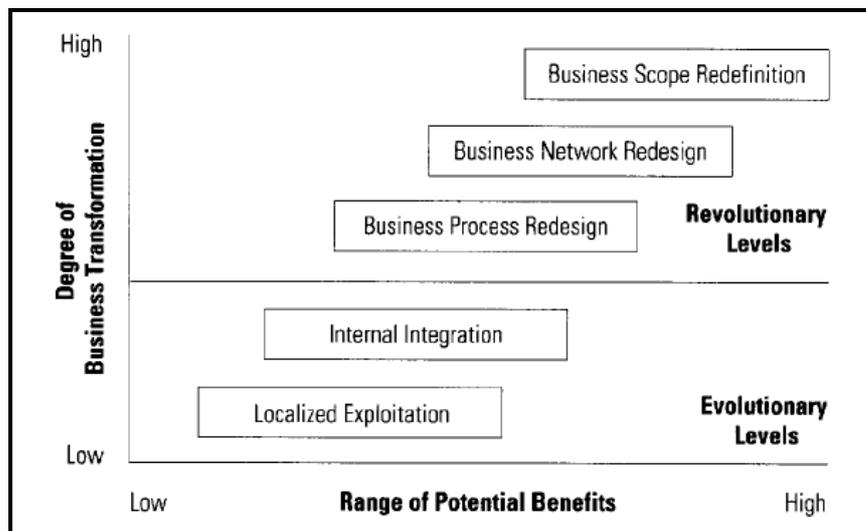


Figure 2: Five Levels of IT adoption. Source: Sloan Management Review

According to this framework, we have tried to formulate a methodology that defines the right starting point and the right way to follow for adopting and using ICT tools and applications for business transformation and value creation.

THE METHODOLOGY

The Methodology for introducing innovative e-Business solutions to SME is based in three main phases (figure 3):

- Analysis of 'As-Is' situation:
- Process redesign;
- Process automation.

This methodology integrates different well known methodologies used for process management, change management as well as international standards for process mapping and modelling.

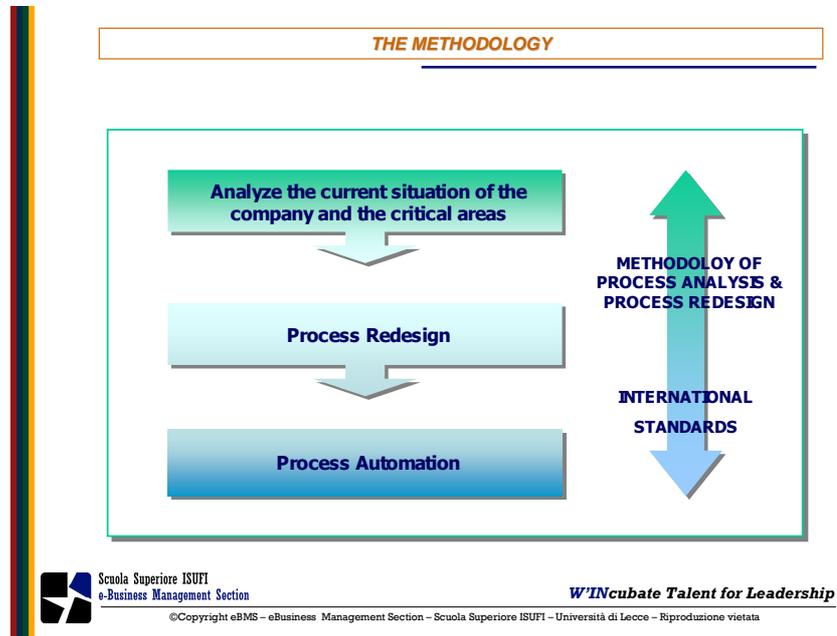


Figure 3: The Methodology Phases

In particular the methodologies used include:

- the MIT process handbook;
- the matrix of change tool used for designing the best pathway for change;

While the international standards used consist on BPMN for business process mapping and XPD L for the business process execution.

In the following sections we will explain in detail each of the three steps of the methodology along with tools, solutions we use in each phase.

The analysis of 'As-Is' situation

The methodology starts with an analytical phase that is aimed to describe the general situation of the firm under consideration. This phase has a two fold objective:

The industry analysis and the firm specific analysis.

The industry analysis aims to identify opportunities and constraints of the context where the firm operates. In order to do this, it is important to identify and examine factors that shall be taken into account while planning and organizing the e-business project. The five porter forces analyzes is used in this phase as a framework for industry analysis of the industry.

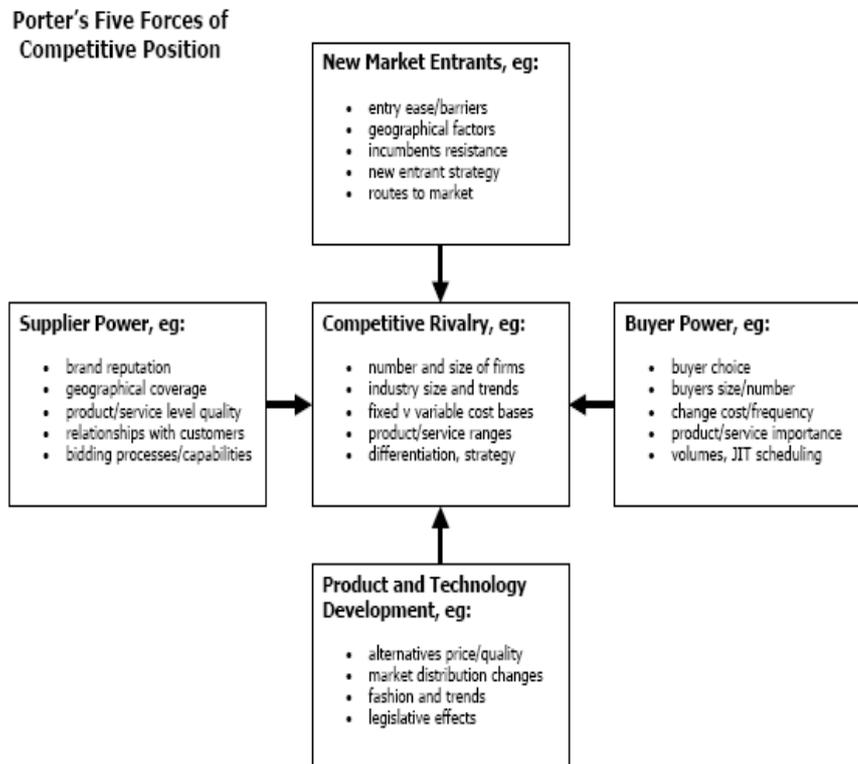


Figure 4: Porter Five forces

In particular the following issues can be analyzed:

- the competitive boundaries of this industry
- the major products/services sold in this industry.
- the major customers in this industry. Who will they be in 5 years?
- the principal channels through which products/services are sold.
- The best practices by which products/services reach the customer within these channels
- the major competitors (rivals) in this industry. What is the intensity of their involvement? Who will be the competitors in 5 years?
- the barriers to entry into this industry.
- the industry leaders? Outline general business strategies the leading firms in the industry follow.
- The substitutes for products/services of the industry that exist or are on the horizon.
- how firms in this industry add value to products/services throughout their value chain.

The method used for industry analysis consist mainly on a desk research where statistics, country/sector reports, previous literature and case studies are analysed to sketch out a description of the context.

The firm level analysis on the other hand is aimed to realize a thorough understanding of the current issues that the business taken in consideration is facing. In this stage a deepen knowledge of how the business function actually is realized, through direct visits and personal interviews. This step aims at depicting the organization's business processes, functions, services as well as for identification of bottlenecks, the diagnose of the relation practices of the company with its clients and suppliers, identification and analysis of improvement opportunities and definition of an implementation concept.

The first task of this phase is to understand in general terms the company activity, resources and structures.

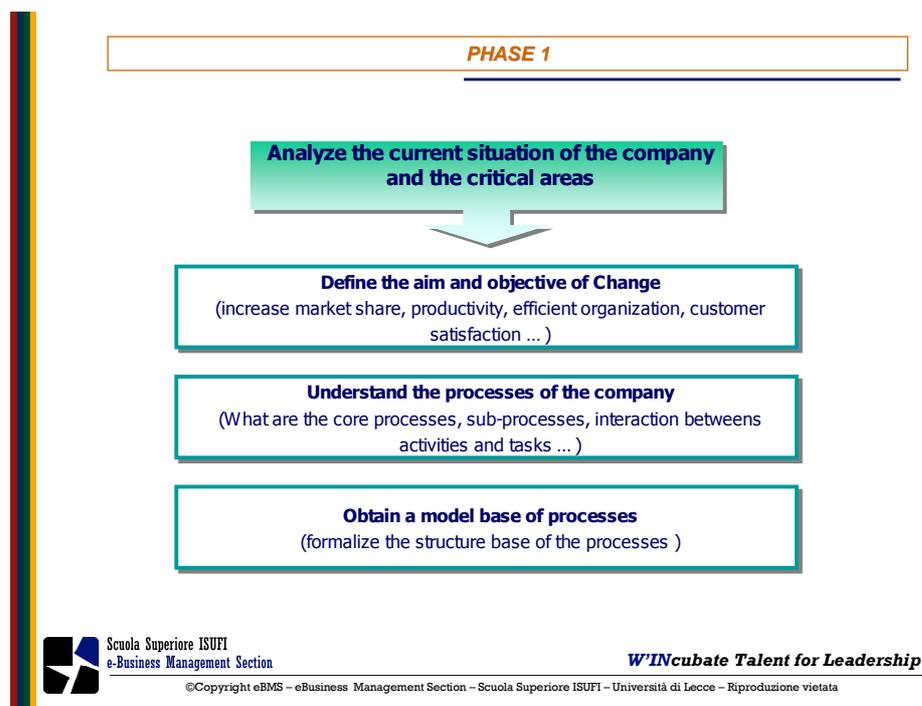


Figure 5: Phase 'As-Is'

In analyzing the 'As-Is' situation of the firm particular emphasis should be given to identification of critical areas which are not well practised in the SME under consideration, but which are of major importance for the achievement of the stated business objectives. This holistic analysis approach clearly indicates all bottlenecks and stresses those which are critical for the achievement of the key strategic business objectives and which, therefore, have to be eliminated with the highest priority.

The method used for the assessment of current situation focus on a survey research consisting on direct observations, questionnaires and interviews with the executives managers of the business. In trying to understand and describe the current situation, particular emphasis need to be given to 4 main areas:

1. Internal Environment – through which it will be possible to depict the organisational structure of the business, its main activities, processes and functions, as well as the strategy, resources, assets and performance issues.
2. External Environment – is aimed to trace how the business relate and interact with its customers, suppliers and stakeholders in general.
3. eReadiness – to carry out an assessment of current ICT adoption and IS skills used by the firm in its organisational processes and the IT tools that are associated to them. This is aim is to elaborate a snapshot of the company in terms of IS/IT.
4. Future Trends – through which it is possible to detect the future plans of the company regarding new technologies adoption; New business models; New collaboration process.

After this first screening an analysis of the data collected is needed through which is possible to recognize activities and habits (culture of work) that are interesting to maintain, as well as identifying weaknesses and threats that have to be overcome with the proposals subsequent to this phase.

Being that our focus is to provide firms with ICT solutions that helps them automate their process for increasing efficiency, a detailed analysis of the business process is needed.

Using as guideline framework the “Value Chain Analysis” of Porter (1985) the objective is to evaluate the current business process performed by the company, to identify the main supply chain actors, their roles and types of relationships with the firms as well as to define to which extent the current internal activities contribute to company’s competitive position.

In order to structure the analysis, the activities are divided in primary activities and secondary activities. The first ones are the ones oriented to the reception of raw materials, production processes, distribution, Marketing and after sales services. The last ones are the activities of support that focus in facilitating the tasks of the primary central activities.

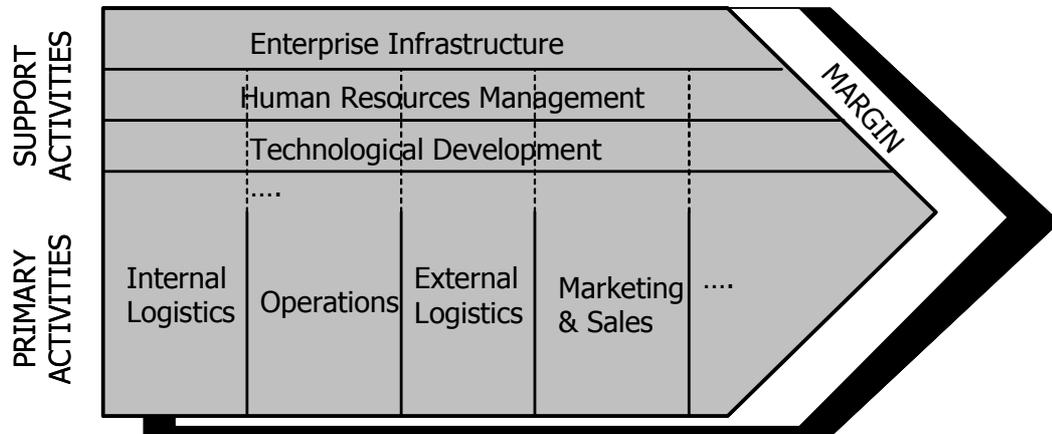


Figure 6: Value Chain. Company Value Chain (Porter, 1985)

The idea is to evaluate each activity on the basis of:

- Which activities have been proved to be well done, and maybe done in a better way than the competitors? (hence, it is considered as being a strength)
- Which activities are considered to be done incorrectly, or less efficient than the competitors? (hence, it is considered as being a weakness)

Normally, the activity-comparison is done in reference to the leading companies in the sector, or for the defects, the one that is considered as the main competitor of the company, object of the analysis.

Phase II - Process Redesign

Process analysis

After defining the activities the next step is to analyze processes of the company. The aim of this task is to analyze in detail the processes of the firms to define which are those critical areas where ICT/IOS tools can increase the business efficiency.

In analysing processes it is important to define how does the process work, who do what and when, with which other processes, and departments the process relates and interacts. A business processes modelling is realized in this phase which consists of the mapping of each business process according to the following conceptual schema.

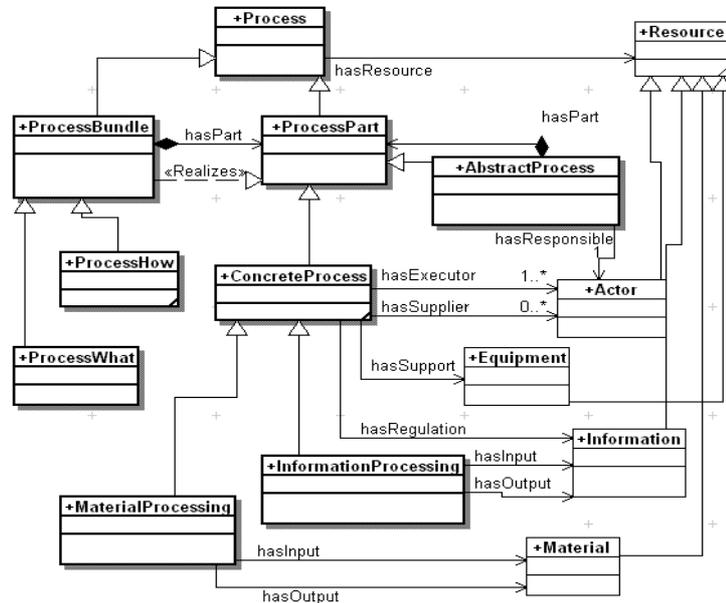


Figure 7: An example of business process modelling

This conceptual scheme is a graphical way of representing business processes, however it is considered as a good starting point for mapping processes on the MIT PH. The analysis of the main workflow processes, will allow us to organise the company activities, in such a way as to allow the identification of a unique person that is responsible of the process (that is he/she assumes the direction of the process from the beginning till the end, even though other departments and persons may intervene during the processing).

This mapping will be the basis for identifying key processes and sub processes, henceforth very useful for the business processes breakdown.

Process analysis and the modelling will permit us to define main weaknesses and criticalities of the firms. Thus a business processes reengineering needs to be performed in order to improve business processes performance.

As Venkatraman (1994) argues the most important advantage of Business Process Redesign (BPR) can be realized starting with the change of the current business process, that should be also integrated. With the aim to reach this goal, IT functionalities could be used to design a new organization and the linked new business processes, that can involve both a part of the organization or the total one.(Venkatraman 1994).

Business process reengineering

Business Process reengineering is a process through which it is intended to optimise and adjust a company's business processes and valorise whether these should be changed before applying an IT application to support them. Consequently, a very important component of business process reengineering is *change management*, and many reengineering processes have failed because of a lack of systematic and methodical view on how to manage change.

The Matrix of Change (Brynjolfsson et al, 1997) is a valid tool that can be used for defining the best path toward change management. MOC is a **visualization tool**, developed by the MIT e-Business Centre, for capturing the existing and desired states of a proposed change in an organization/business system. It provides a systematic way to judge those business practices that matters most. It highlights interactions among these practices and possible transition difficulties from one set of practices to another. This method encourages various stakeholders to provide feedback on proposed changes. Then, it uses process interactions to provide guidelines on the pace, sequence, feasibility and location of change.

The Matrix of Change functions as a four-step process, which are the following (Brynjolfsson et al, 1997):

- **Identify Critical processes:** On the basis of the questionnaires and interviews completed in the previous phase and with the help of the MIT PH modelling, the identification of key processes is significantly simplified. Along with this task, it is also important to identify these processes "with the end in mind", that is identifying the *purpose or business objective of change*, whether it is organisational learning, market share, flexibility, customer satisfaction, or something else. Then, and in order to help the building of the matrix, it is recommended to undergo the breaking of *current practices into constituent parts*, and then breaking *target practices into constituent parts*. The current state, identified in the previous step, describes how the organization functions prior to the change, in terms of the organization's configuration of strategy, activities, practices and work processes. The future state ideally specifies how the organization should function after the change initiative has been implemented successfully.

Key processes can be normally grouped into **categories** by:

function (e.g., marketing, human resources, manufacturing);

business objective (e.g. acquisition of a new market segment);

Strategic initiative / such as business projects (e.g. elimination of non-value-adding costs and speed).

- **Identify System interactions:** After describing existing and target practices in the agrifood domain, the two triangular matrices are filled in order to identify complementary and competing practices and, consequently, the level of stability of current and future system. Complementary processes reinforce one another whereas conflicting processes work at cross-purposes.

If practice areas are complementary their resulting matrix interaction is therefore a "+" (practices are reinforcing). If on the other hand, practices are competing - doing less of a competing practice increases returns to the other a "-" would be entered.

So, interactions can be quite easily identified following a purpose-driven aggregation of target processes. If some doubts still exist a little brainstorming among project managers can be useful to definitely solve them.

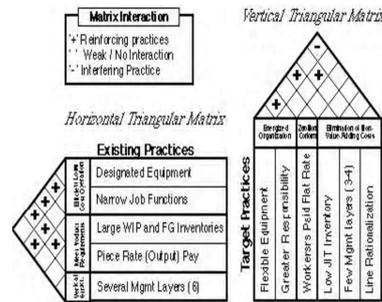


Figure 8: Horizontal and Vertical matrices capture the existing and target practices respectively (example taken from an MIT case study: MacroMed)

- Identify transition interactions: Next, a Transition Matrix is drawn - a square matrix combining the horizontal and vertical matrices, which helps in determining a plan for change, in defining the best path from old to new and, consequently, the degree of difficulty in shifting from existing to target practices. The transition matrix shows the interactions involved in moving from existing practices to a clean slate and it shows how important interactions between proposed changes may play out.

The percentage of positive and negative signs in the transition matrix indicates how disruptive the change process will be. A transition matrix with a comparatively large number of complementary practices and few conflicting practices indicates that the change will be relatively incremental and non-disruptive. Likewise, large number of conflicting practices indicates that the change will be disruptive; therefore the location and timing to implement the change become critical. A fairly negative transition matrix also signals the importance to take into consideration alternative practices or, in other words, a different business model. Finally, the Matrix of Change team should catch the firm’s level of awareness of opportunities and risks.

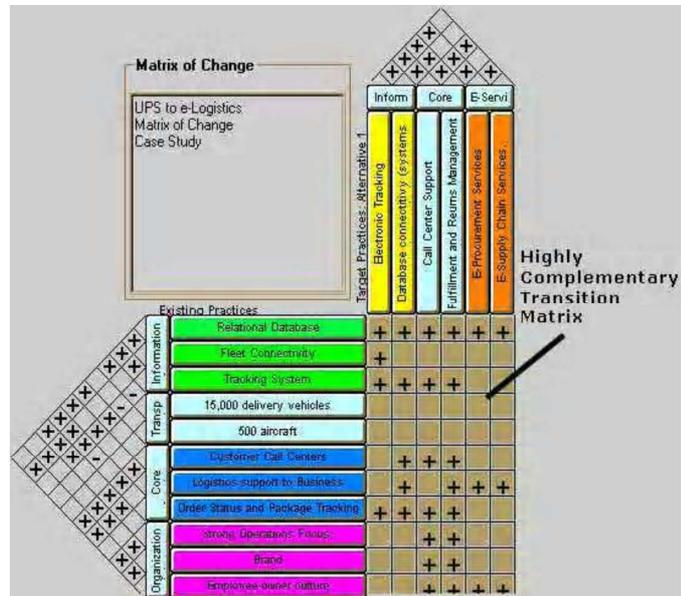


Figure 9: Transition Matrix : Old and New practices (example taken from an MIT case study: UPS)

- Survey Stakeholders: In this final step, the team needs to determine where various stakeholders stand with respect to retaining current practices and implementing target practices. Just as listening to the “Voice of the Customer” is essential to building a better product, listening to the “Voice of the Stakeholder” is essential to building a better process. Several different groups should be given the opportunity to indicate how important each process is to their job performance. Evaluation is captured generally by some structured organizational survey using a five point Likert scale anchored at zero. A value of "+2" means that a practice is extremely important and a value of "+1" that a practice is important but not essential, while a value of "-2" indicates a strong desire to change or reject business as usual. Blanks indicate zero values or no strong preference with respect to maintaining or eliminating these practices.

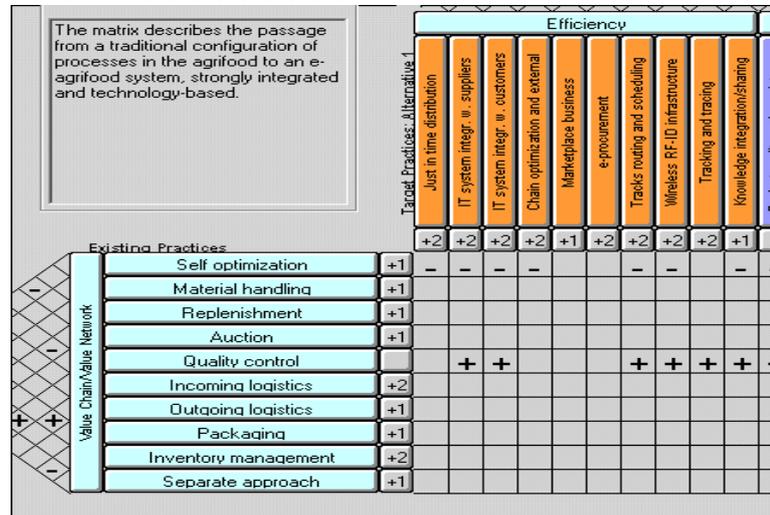


Figure 10: Stakeholder's evaluation (example taken from an Agrifood domain study)

Once the target practices are defined and evaluated, knowing how the existing and proposed business systems interact with each other, the next steps consist of:

- Interpreting the matrix of change, that is identifying the implications for change management. In this sense the Matrix of Change is a useful tool for addressing the following questions:

Feasibility: Do the set of practices representing the goal state constitute a coherent and stable system? Is our current set of practices coherent and stable? Is the transition likely to be difficult?

Sequence of execution: Where should change begin? How does the sequence of change affect success? Are there reasonable stopping points?

Location: Are we better off instituting the new system in a Greenfield site or can we reorganise the existing location at a reasonable cost?

Pace and Nature of Change: Should the change be slow or fast? Incremental or radical? Which groups of practices, if any, must be changed at the same time?

Stakeholder evaluations: Have we considered the insights from all stakeholders? Have we overlooked any important practices or interactions?

Each major area in the Matrix of Change serves various roles and addresses different aspects of these five issues. Taken together, they offer useful guidelines on where, when, and how fast to implement the change.

Modelling the new business processes and workflows inherent to the target practices

Based on the proposed target practices, new business processes arise. These new business processes correspond mainly to processes related to new chain and organisational models, new

online processes (in the case the company is ready to adopt a new business model based on Internet) and finally new processes inherent to the application of a new technological tool (ICT).

Through the use of the MIT PH library as well as by using other best practices cases it is possible to define some possible alternatives for improving the criticalities of the processed identified. thus it is possible in this way to realize a table with the main criticalities identified and possible solutions and alternatives identified.

The different alternatives and solutions identified needs to be evaluated in order to chose the best one that fits to firm's needs.

This mapping will be the basis for designing the new organisational model of the company.

Phase III - Process automation:

The process automation phase consist on digitalizing the processes according to alternatives defined by an ICT company. The focus here is to refine the basic model in order to obtain a machine readable model. Well known international standards such as BPMN; XPDL, BPEL will be used in this phase for modelling the processes that needs to be automated. The work is then to coordinate the workflow and to adapt the pre-configured process to the company situation. Next tasks are the specification of the necessary application software and interfaces with legacy systems.

CONCLUSIONS

This paper presents a methodology that guide SME toward the use of ICT in a feasible way tailored to their needs. It is argued that before starting an initiative of ICT introduction in SME, it is important to firstly undertake a detailed assessment of the firms to understand the state of the art of ICT use. Many times ICT use doesn't guarantee profitability and many times worse the competitive position of firms (Porter, 1985). On of the main reasons associated with that is the fact that application and implementation of ICT tools and infrastructures are not suitable for their needs and objectives. The first step is the establishment of an appropriate and tailored approach. Every project or initiative needs to be rooted in a very careful, analytical and dynamic approach. In many cases the shift toward new electronic business models is limited to a simple transfer of information and services online without taking into consideration the re-engineering process needed to grasp the full benefits. Part of the approach is to engage in a rigorous assessment of the current situation, the reality on the ground, articulate costs, impacts and benefits as well as continuously monitor and evaluate the project upgrading.

However, starting at the right point and in the right way doesn't automatically guarantee success and competitive advantage to SMEs. There need to exist some conditions and prerequisites that a firm need to satisfy in order to efficiently implement the ICT tools and application:

Human resources – The availability of appropriate skills is central for successful ebusiness implementation. Thus, it is important to assess the technological profile of the employees involved in business processes. It is important to indicate whether the actual ICT skills and profiles exist and if not which types of skills, capabilities and competencies are missing. Also,

training plan need to be established defining the education programs needed, for what time, to whom etc. The training plan will take into account the profiles of the people involved in the tasks articulated by each module of the e-Business solution to be installed. The purpose of the training plan is to fit as much as possible the needs of the employees, in order to create full adherence to the e-business initiative and to the cultural change as well. Also, lifelong learning is an essential prerequisite as the rate of change increases and new technologies, practices and competitive models emerge.

- Change management issues, also, must be addressed as new work practices, new ways of processing and performing tasks are introduced. The use of new ICT tools and applications will revolutionizes and reinvents the business. Employees fear changes in general and ICT applications in particular as they believe that ICT would replace them and so cause job losses. Thus, employee resistance to change is still the biggest barrier to successful change. Moreover, it is very difficult in a short time to turn off traditional methods of working and learn new ones. Addressing resistance successfully means ensuring the existence of incentives for employees to learn and change and the establishment of well-structured plans that embrace employee participation throughout all stages of a change process.

- Leadership is one of the main driving forces of every new and innovative project or initiative. A leader which is able to understand the real costs and benefits of the project, to motivate, influence,

include and support other organizations and institutions, is required. Leadership is necessary before, during and after project implementation. Before the project is initiated, leadership is needed in order to explain the concept, the model and create awareness; during the project, leadership is needed to manage change and support the project; and after the project, it is needed to pledge the required flexibility and adaptability of the initiative. Top leadership involvement and clear lines of accountability for making management improvements are critical to overcoming organizations' natural resistance to change, marshalling the resources needed to improve management, and building and maintaining the organization wide commitment to new ways of doing government (McClure, 2001).

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TURKISH CONSUMERS' EVALUATION OF CHINESE GOODS: DOES THE PERCEPTION VARY ACROSS PRODUCT CATEGORIES AND PRODUCT ATTRIBUTES?

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Purpose - Although various research has found negative attitudes towards Chinese goods, China has continuously increased its share of the world's exported goods. Consumers internationally including Turkish consumers are skeptical about Chinese goods. Despite this fact, dominance of Chinese goods in Turkish market seems unstoppable since its share has increased up to 90% in some product categories. The purpose of this research is to explore overall perception of Chinese goods relative to other countries. Particularly, the research investigates whether the Turkish consumers' evaluation of Chinese goods varies across specific product categories and particular product attributes such as design, performance, technology, quality, price, and creativity. In addition, the study tries to find out if the evaluation of product attributes and product categories differ in accordance with consumer demographics.

Design/methodology/approach - The study has followed a quantitative approach. For attaining the above aims, a field survey was conducted in Eskişehir, Turkey. The data was collected face-to-face by a structured questionnaire from a sample of 300 people. In the questionnaire, to represent categories, we have chosen nine specific products that China have relatively high share in Turkish market. Also we have identified twelve product attributes to be evaluated by the respondents in a scale.

Findings - China has been ranked as the least preferred country by 35.8% of the respondents. The findings of the study revealed that Turkish consumers' perceptions of country of origin vary significantly across the product attributes. The respondents have found the price dimension as the most favorable attribute of the Chinese products followed by design, creativity and entertainment attributes. The research has also found that country of origin perceptions of China tend not to be product category-specific. Although the most favorable product category was souvenir/gifts and the least favorable was air conditioners/heaters category, the difference in the perceptions of these product categories was not significant. The study did not find significant role of the consumer demographics in the evaluation of Chinese products with respect to product categories and product attributes.

Research limitations/implications - The present study has just focused on Turkish consumers' evaluation of Chinese goods. Comparative studies conducted in different countries are needed to have a better understanding of the perception of Chinese goods.

Originality/value - Chinese goods in Turkey have been a controversial issue and discussed heavily in various context. Although there were findings about the opinions of entrepreneurs and executives on Chinese goods, information about the consumers' perceptions was lacking. So by exploring the consumer perspective, this study filled such a gap in the literature. The study may provide valuable insights for Chinese goods marketers in Turkey.

Keywords *Perception of Chinese goods, Product categories, Product attributes, Country of origin, Consumer behavior, China, Turkey*

Paper type Research paper

INTRODUCTION

Perceptions of products are influenced by many stereotypes. Country of origin in other words, our perceptions about where the product is coming from is an important stereotype that influences our evaluations of products. Country of origin studies in the marketing literature goes back to 1960's. China, as being one of the most proverbial countries of the last decade has been subject to the country of origin studies more recently. Country of origin may provide advantages or disadvantages for products coming from different countries. Various researches suggest a negative country of origin perception for Chinese products. For example, a survey made by Interbrand, have found "Made in China" hurts Chinese brands (Roberts, 2007). So to hide country of origin many products use "Made in PRC" (People's Republic of China) instead of made in China labels. Contrary to research results, China has been a phenomenon for the world economy and almost it has been impossible to find any product that is not manufactured in China or originally Chinese all around the world. Turkey was not an exception. By 2007, China was the third country in terms of Turkey's import volume and it was possible to find Chinese goods in 30 different product categories ranging from toys to electronics. Meantime, popular press was full of negative news about Chinese goods and also industry representatives warned public against Chinese goods. So in this research we have made an attempt to explore the preference of Chinese goods relative to other countries' products and particularly to explore if the evaluation differs with respect to different product categories and product attributes.

Various researches have shown that country of origin perception differs with respect to product category and product attributes. Kaynak and Çavuşgil (1983) found that consumers suggest that quality perceptions tend to be product-specific. Eroglu and Machleit (1988) showed that country of origin is a significant indicator of product quality, but its relative influence varies by product category as well as by individual and product variables. It has been shown in several studies that stereotypes of products from a particular country could vary by product category (Eroglu and Machleit, 1989 in Choe and Cho, 2000). M. Sadiq Sohail (2004) examined the country of origin effect of products made in China. The study focused on the questions of the evaluation of specific product dimensions by Malaysian consumers; and consumers' assessment of different product categories. It was found that products made in China had been rated highly for their competitive pricing. Foodstuffs were generally found to be the popular preference of product category by Malaysian consumers. In another survey by Leo J. Shapiro and Associates (2002), it was found that The Americans hold medium and low level of interest in buying Chinese goods. They have shown relatively more interest in buying electronics, computers, textile and television coming from China (Shenkar, 2007). So in this research we have followed a similar approach and focused on the evaluation of different product categories and product attributes.

REVIEW OF RESEARCH ABOUT THE EVALUATION OF CHINESE GOODS

Evaluation of Chinese goods by the world consumers has been a popular subject for international market research companies in recent years. Possibly because of the latest news about the potentially unsafe products coming from China and because of its being a threat for

local manufacturers, they have conducted various researches in different parts of the world. However in the marketing literature, there are fewer researches about country of origin effect of China and consumers' evaluations of Chinese goods. Some of the research results have been summarized below.

Kaynak and Kara (2000) found that compared to the products coming from Japan, USA and Western Europe Chinese products were perceived to be inferior in terms of reliability, durability and service by Turkish consumers. In other words Turkish consumers did not have positive perceptions and evaluations about products coming from China.

Huddleston et al. (2001) found that generally, USA and German products were rated more favorably when compared to Chinese products among Polish consumers. In their study performed in Russia, it was concluded that quality ratings of Chinese products were very low and Russian consumers perceived Chinese products to be much lower in quality than Russian products (Huddleston et al., 2000).

Yee and Wa (2004) revealed that when people see a product which is from Mainland China, they may have strong perceptions that the product is not good. The results also prove that people in Hong Kong do not like China brand products very much; they think the products are old-fashioned, cheap and not innovative. In their study, Lyden et al. (2005) have found that there is some sort of negative impact on Swedish consumers when products are made in China.

Cengiz and Kırkçbir (2007) found that the products made in China were evaluated high by the mean price and innovativeness but quality, performance, durability, assortment and other attributes were seen defective by Turkish consumers. Leonidou et al. (2007) found that Chinese goods consistently received lower scores among British consumers, denoting worse design, quality, distribution and service compared to the US goods, which received lower evaluations.

A survey by Angus-Reid Global Monitor (2007) in Canada showed that 51% of respondents were paying closer attention to product labels when shopping because of recent recalls of Chinese-made products. The survey also reported that about 83% consumers think that Chinese products sold in Canada should carry a label of origin stamp. Similarly, a separate Reuters-Zogby poll gauging consumer confidence in the U.S. has found that 35% of respondents were "very worried," and another 43% were "somewhat worried" about the safety of Chinese products. A recent series of product safety scares involving products ranging from pet food to toothpaste to toys has shaken consumer confidence in made-in-China goods (<http://www.cbc.ca/canada/story/2007/09/19/china-products.html>). In another Zogby Poll research in 2007 it was found that 82% concerned about buying goods from China (Powell, 2007). According to a survey by Gallup in 2007, a solid majority of Americans report paying more attention to which countries produce the products they buy, say they are making an effort to avoid buying products made in China, and express a willingness to pay higher prices for similar goods made in the United States. The public estimates that close to half of imported food and manufactured goods from China violate U.S. health and safety standards (Jones, 2007).

An online poll by U.S. news channel MSBNC showed that 77% of 9,865 people said they were for 'China-free' labeling. According to a Reuters/Zogby poll released in mid-September 2007, around 78 % of Americans worry about the safety of Chinese imports, and a quarter have stopped buying food from China, with 23% no longer buying Chinese toys, and 16% imposing a

total brand ban. The poll found more intense worry among poorer consumers and women. Almost 40% of British consumers are less likely to buy Chinese-made toys because of Mattel's recent crisis, according to a YouGov survey commissioned by Marketing Week (Kasriel, 2007).

Synovate Company (2005) found that only one in eight respondents from the US and key markets in Europe think highly of the quality of products made in China and Korea. Chinese and Korean products may be seen as low quality, but they are also low cost, so the perceived value is significantly higher than quality. (<http://www.synovate.com/knowledge/infact/issues/200601/>).

A poll conducted by The New York Times/CBS News concluded that 35% of the adults surveyed consider Chinese imports to be more unsafe than imports from other countries, but 55% said their perception that Chinese imports are more harmful is a result of the recent wave of recalls. The survey further indicated that 71% of the participants were aware of a product's country of origin upon purchase, and only 14% stopped purchasing Chinese goods because of the recalls (Weisman and Connelly, 2007).

TURKEY-CHINA TRADE RELATIONS: CHINESE GOODS IN TURKEY

China introduced market reforms in the early 1980s; only a third of the economy is now directly state-controlled. Since joining the World Trade Organization in 2001, China has rapidly become an economic force, doubling its share of global manufacturing output, creating a commodity-market boom and accumulating \$1 trillion of foreign-exchange reserves. In 2004 China became the largest exporter of information and communication technology (ICT) exports (Economist.com, Nov 12th 2007).

Trade relations of China and Turkey have started with trade agreement signed in 1970's. (http://www.tisk.org.tr/yayinlar.asp?sbj=ana&ana_id=51). Starting with the door locks, Chinese goods have penetrated to all sectors ranging from cars to computers to carpets. (<http://www.atonet.org.tr/yeni/index.php?p=60&l=1>). By the year 2003, pulling ahead of Japan and South Korea, China has become the largest trade partner of Turkey among the Asia-Pacific countries (http://www.ekodialog.com/Makaleler/turk_cin_iliski.html).

Table 1 shows the trade relations between China and Turkey. A significant increase in trade volume occurs in 1995. By the year 2000, trade volume has reached 1.4 billion dollars and after 2002, a continuously increasing trend is observed in the imports from China. The table also indicates a big deficit in the trade relations of two countries. For example, in the year 2007 import from China was 13.2 billion dollars while the exports to the China were just about 1 billion dollars.

<u>YEAR</u>	<u>EXPORT</u>	<u>IMPORT</u>
1990	37	246
1991	20	172
1992	144	172
1993	512	255
1994	355	258
1995	67	539
1996	65	556
1997	44	787
1998	38	846
1999	37	895
2000	96	1.345
2001	199	926
2002	268	1.368
2003	505	2.610
2004	392	4.476
2005	550	6.885
2006	693	9.669
2007	1.040	13.234
2008/9	1.176	12.249

Table 1. Turkey – China Foreign Trade (Million \$)¹⁹⁷

By the first half of 2007, 7.4% of the imported goods were coming from China and following the Russia and Germany it was the third country in terms of Turkey's imports (http://www.kobifinans.com.tr/tr/dis_pazar/0406/17200/5).

Ankara Chamber of Commerce has conducted a research about Chinese product in Turkey in 2004 and has reported that the penetration of Chinese goods have been seen in 30 different sectors. According to the research 95 % of all the toys, 76 % of armatures, 45% of eyeglasses, 25% of carpets and half of the air conditioners in the Turkish market were coming from China. Table 2 shows the penetration of Chinese goods in diverse sectors such as bicycles, electronics, toys and ceramics (www.atonet.org.tr). So, China was chosen for this research, as it is one of the most important commercial partners of Turkey and also it is a very controversial country in terms of the products they export to the global markets.

¹⁹⁷ Turkish Prime Ministry for Foreign Trade

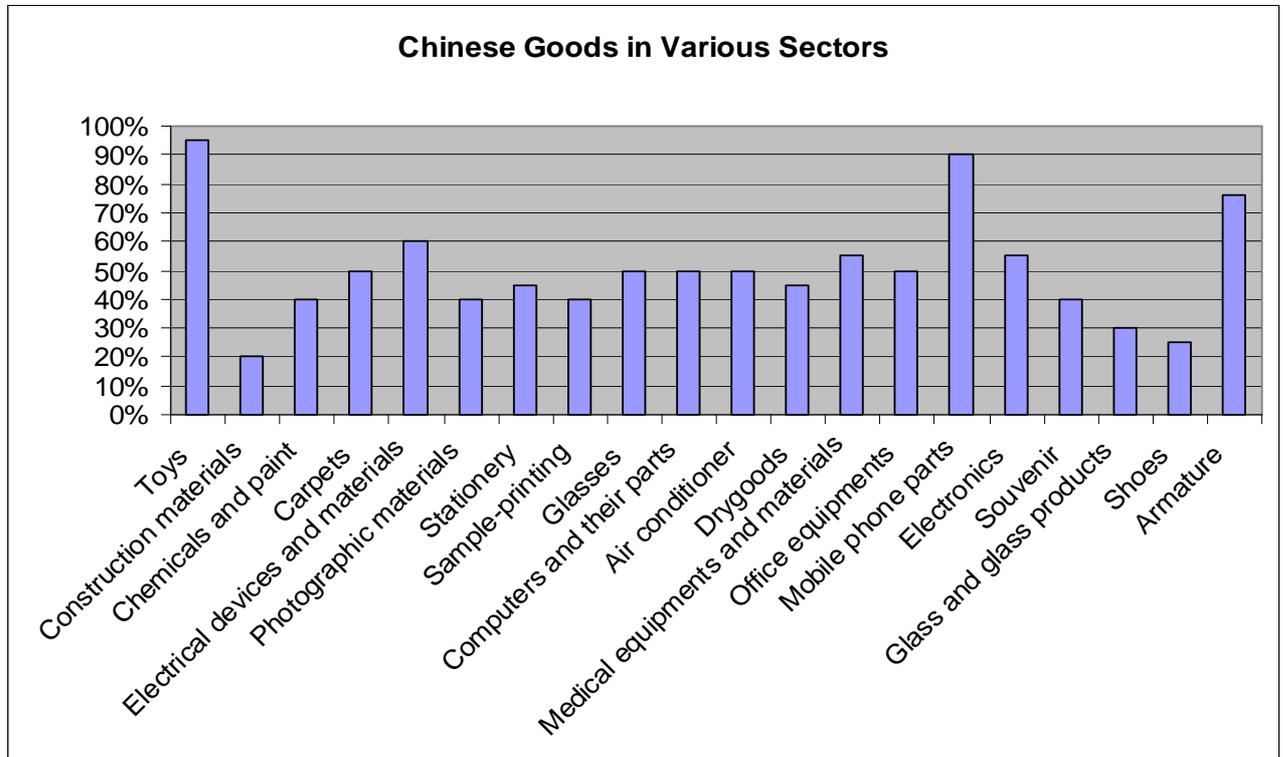


Table 2. Chinese Goods in Various Sectors

RESEARCH METHOD

This study draws upon fieldwork conducted in Eskişehir. Eskişehir is rated as 3rd most livable city of Turkey in terms of life quality, health, education, livability, development and other socio-economic data according to a study of United Nations Development Agency (Gözütok, 2008). In this research, quota sampling was used. In the selection of the sample units we have considered the age and gender distribution of Eskişehir according to the latest census data. Distribution of the population in terms of income and education level is considered also. Data were collected from 300 respondents by means of self-administered questionnaire. For the respondents who do not have sufficient education to fill the questionnaire and who need help because of their age we have read the questions in the questionnaire and asked for their response. The data gathering process was carried out in December 2007 and January 2008. The questionnaire consisted of four major parts; the first asked the preference of Chinese products relative to other countries' products with a ranking question; the second part comprised the questions about the respondents' experiences with Chinese products. The third part of the questionnaire included product categories and product attributes to be assessed by the respondents as "good" or "bad" in a five point Likert scale. Finally, the last section of the questionnaire explored the demographic profile of the consumer in terms of age, gender, education, and monthly household income which are used to interpret the responses to other questions.

Data analysis took the following forms; first of all, percentage frequencies were estimated for ranking and experience questions; second, mean scores were estimated for each product categories and product attributes measured on five-point rating scales; third, t-test and one-way ANOVA tests were employed in order to find out the role of demographics on the evaluation of Chinese goods.

FINDINGS

Sample Profile

In terms of demographic characteristics, the sample was more or less equally split between males and females. The sample comprised 156 males and 144 females. In terms of age grouping, 20.3% of the respondents were in the age group 18-24. Just over half (50.3%) of the sample was aged between 25-44, while the remainder (29.3%) were in the age group 45-74. In terms of education, just 13.1 % of the participants in the survey had received mainly primary education or was literate; more than half of the participants (51.7%) had only secondary or high school education, while the remaining 35.2% had graduated from university, master or PhD program. With regard to monthly average household income, 27.3% of the respondents earned less than 1000TL (1TL≈0.5Euro), another 46.8% was in the range of 1001TL to 2000TL, while the remainder (25.9%) had an income exceeding 2001TL.

<i>Demographic variables</i>	<i>Frequency</i>	<i>%</i>
<i>Age</i>		
18-24	61	20.3
25-44	151	50.3
45-74	88	29.3
<i>Sex</i>		
Male	156	52.0
Female	144	48.0
<i>Highest level of education</i>		
Literate and primary school	39	13.1
Secondary and high school	154	51.7
Bachelor, master and phd degrees	105	35.2
<i>Monthly average household income*</i>		
Less than 1000 TL	81	27.3
1001-2000 TL	139	46.8
More than 2001 TL	77	25.9

Table 3. Sample Characteristics, Note: Frequency totals may vary due to missing data

** At the time of the study 1 Euro was equal to 2 Turkish Liras.*

Preference of Chinese Products

In this research instead of asking the overall assessment of Chinese products, we wanted to learn about the preference of Chinese products relative to other countries' products. So in the questionnaire we have described a scenario and asked respondents to consider unbranded products from different parts of the world. All the attributes of the products are assumed to be completely similar (price, quality, design, size) other than the country of origin. We asked respondents to rank the country/region preference for this product over a list of 8 countries/regions including Eastern Europe, Japan, USA, Western Europe, Turkey, China, and Arabian Countries. As seen from the table a very small part of the respondents indicate that that they would prefer the goods coming from China. Only 5% of the respondents ranked Chinese product as their first, second, third and fourth choice. So the result of this ranking question indicates a negative preference for Chinese products.

<i>China as the first choice</i>	0.4%
<i>China as the second choice</i>	1.2%
<i>China as the third choice</i>	1.7%
<i>China as the fourth choice</i>	1.7%
<i>China as the fifth choice</i>	6.2%
<i>China as the sixth choice</i>	23.9%
<i>China as the seventh choice</i>	29.2%
<i>China as the eighth choice</i>	35.8%

Table 4. Ranking of the Preference of Chinese Product

Experience with Chinese Products

We have also asked the respondents' experiences with Chinese products. In order to learn about their experiences with Chinese products we have asked two different questions. We have differentiated the original Chinese products from the products with Western origin but manufactured in China. In the questionnaire, we have described what we mean by Chinese products. As seen from the table 5, nearly half of the respondents indicated that they had bought an original Chinese product. We wanted respondents to name this product and to assess their satisfaction level. Mean satisfaction level for Chinese products experienced was 2.85 (5 refers total satisfaction- 1 refers total dissatisfaction). While 2.8% of the respondents expressed total satisfaction, 34.7% of those who have purchased Chinese product expressed satisfaction. But an examination of the brands of the products declared by the respondents has shown that consumers can not differentiate between originally Chinese products and products manufactured in China. Some examples of brands that are mentioned as Chinese were Song Yang automobile, Yong Sen automobile, Nike shoes, Bianchi, Barbie toys, Awio mp3 player, Sukida scooter, Yumatu watches, Puma shoes, and Teac mp3.

		<i>Frequency</i>	<i>Valid Percent</i>
<i>Valid</i>	<i>Yes</i>	123	44,7
	<i>No</i>	152	55,3
	<i>Total</i>	275	100,0

Table 5. Have you ever bought an original Chinese brand?

Table 6 shows the responses to the question about the purchase of a product manufactured in China but having a Western origin such as some sneakers and laptops. 34% of the respondents indicated that they have bought such a product while 24% haven't bought such a product.

		<i>Frequency</i>	<i>Valid Percent</i>
<i>Valid</i>	<i>Yes</i>	90	34,0
	<i>No</i>	62	23,4
	<i>Do not know</i>	112	42,3
	<i>Total</i>	265	100,0

Table 6. Have you got any original Western products but which are manufactured in China?

Assessment of Chinese Products with respect to product attributes and dimensions

The analysis above indicates negative evaluations of Chinese products. So how this situation can be explained considering the fact that China's share in Turkish market is very high in various product categories. To address this question we wanted respondents to assess Chinese goods in different product categories and with respect to different product attributes.

Product Attributes	N	Mean
<i>Design (appearance, ease of use)</i>	283	3,3216
<i>Performance</i>	269	2,7138
<i>Technology</i>	274	3,0109
<i>Quality</i>	276	2,3080
<i>Safety</i>	271	2,2989
<i>Guarantee</i>	258	2,1744
<i>Price</i>	271	4,0074*
<i>Durability</i>	273	2,2344
<i>Creativity/innovation</i>	265	3,2868
<i>Funny (being a fun)</i>	255	3,2824
<i>Healthy (suitable for health)</i>	261	1,9579*
<i>Reputation (prestige, image)</i>	270	2,1000

Table 7. Descriptive Statistics for Product Attributes

5= very good , 1= very bad

The dimensions listed for assessment are selected as a result of the review of literature, a review of news about Chinese good in popular press and an observation of stores selling mainly Chinese goods. For instance, observation of the products that are sold in such stores has shown that some of these products were very interesting, funny and creative. With respect to specific product dimensions consumers have different evaluations. The most favored dimension of Chinese goods was price, followed by design, creativity and fun. The respondents evaluate Chinese goods bad in terms of health, prestige and safety.

In the research we asked consumers to assess Chinese products in different categories. The categories for assessment were selected from the list of Chinese product in Turkey that has been declared in Ankara Chamber of Commerce's report.

Product Categories	N	Mean
<i>Toys</i>	281	2,7580
<i>Souvenir/gifts</i>	281	3,0996*
<i>Glassware</i>	262	2,9313
<i>Air conditioners/heaters</i>	205	2,5463*
<i>Household textiles/clothing</i>	231	2,6537
<i>Stationery</i>	243	2,8107
<i>Automobiles</i>	188	2,5904
<i>Electrical small home appliances</i>	237	2,6245
<i>Luggage/bags</i>	226	2,9735

Table 8. Descriptive Statistics for Product Categories

5= very good , 1= very bad

Souvenirs appeared to be liked most by the respondents. Luggage and bags were rated as the second favorable product categories followed by the glassware and stationary. The respondents did not rate any product category as very bad. Air conditioners and heaters have the smallest mean score followed by the automobiles.

In order to analyze if the respondents with different demographic profile have different evaluations for each product category and product attribute t-test and one-way ANOVA were used. The study did not find significant role of the consumer demographics in the evaluation of Chinese products with respect to product attributes. Gender, age, education level, and household income seem not affecting the evaluation of Chinese goods with respect to product attributes. However, with respect to product categories the evaluation of respondents with different demographic characteristics differs in some categories. According to t-test results, there was a significant difference between male and females in the evaluation of automobiles; female respondents rated this category higher than the male respondents. One-way ANOVA results have shown that there was a significant difference in the evaluation of glassware between the respondents in the 18-24 age range and 45-74 age range; younger respondents rated this category more favorable. Also the respondents in 18-24 age range evaluated small home appliances more positive than the respondents in the 25-44 range.

Table 9. Evaluation of attributes of products made in China

Variables	Design	Performance	Technology	Quality	Safety	Guarantee	Price	Durability	Creavity/ Innovation	Fun	Healthy	Reputation
t-test Results for Gender												
Male	3.28	2.62	2.90	2.30	2.27	2.18	3.96	2.24	3.20	3.30	2.05	2.10
Female	3.35	2.79	3.11	2.31	2.30	2.16	4.04	2.22	3.37	3.25	2.09	2.09
p-value	0.49	0.09	0.73	0.89	0.67	0.85	0.5	0.91	0.18	0.64	0.07	0.98
One-way ANOVA Results for Age												
18-24	3.47	2.81	3.28	2.27	2.24	2.26	4.21	2.18	3.39	3.38	2.01	2.19
25-44	3.34	2.68	2.92	2.30	2.31	2.13	3.90	2.24	3.14	3.16	1.95	2.05
45-74	3.16	2.68	2.94	2.32	2.30	2.18	4.03	2.25	3.47	3.43	1.91	2.10
p-value	0.10	0.57	0.04	0.94	0.85	0.68	0.09	0.89	0.06	0.09	0.80	0.64
One-way ANOVA Results for Education												
Lit&prim	3.11	2.50	2.90	2.31	2.26	2.25	3.91	2.23	3.41	3.33	1.94	2.26
Sec&high	3.27	2.75	3.07	2.23	2.25	2.10	3.94	2.20	3.30	3.26	1.94	2.09
Bac,mas,phd	3.44	2.73	2.94	2.41	2.38	2.25	4.13	2.27	3.19	3.27	2.00	2.05
p-value	0.12	0.26	0.52	0.23	0.49	0.45	0.22	0.89	0.53	0.94	0.89	0.51
One-way ANOVA Results for Household Income												
$x \leq 1000$	3.31	2.73	2.98	2.17	2.23	2.35	3.92	2.22	3.25	3.26	2.00	2.22
1001-2000	3.35	2.65	3.00	2.30	2.29	2.10	3.95	2.19	3.25	3.25	1.97	2.01
$x \geq 2001$	3.27	2.76	3.00	2.38	2.33	2.10	4.17	2.27	3.36	3.33	1.82	2.04
p-value	0.82	0.59	0.98	0.29	0.76	0.14	0.17	0.84	0.75	0.84	0.41	0.26
The mean difference is significant at the .05 level.												

Variables	Toys	Souvenir/ Gifts	Glassware	Air conditioners/ Heaters	Household textiles/ Clothing	Stationery	Automobiles	Electrical small home appliances	Luggage/ Bags
t-test Results for Gender									
Male	2.85	3.00	2.92	2.52	2.64	2.82	*2.45	2.61	2.90
Female	2.66	3.18	2.93	2.57	2.66	2.79	*2.73	2.63	3.04
p-value	0.16	0.11	0.94	0.68	0.87	0.78	0.04	0.83	0.25
One-way ANOVA Results for Age									
18-24	3.01	3.16	*3.20	2.80	2.66	2.94	2.76	*2.94	3.20
25-44	2.73	3.11	2.92	2.52	2.62	2.74	2.54	*2.53	2.93
45-74	2.61	3.02	*2.74	2.41	2.69	2.81	2.52	2.62	2.88
p-value	0.11	0.65	0.19	0.11	0.91	0.42	0.41	0.02	0.16
One-way ANOVA Results for Education									
Lit&prim	2.56	3.05	2.69	2.31	2.79	2.74	2.70	2.59	2.93
Sec&high	2.76	3.14	3.03	2.54	2.60	2.84	2.58	2.63	2.93
Bac,mas,phd	2.83	3.06	2.86	2.64	2.69	2.79	2.53	2.63	3.04
p-value	0.46	0.78	0.12	0.20	0.56	0.86	0.75	0.94	0.67
One-way ANOVA Results for Household Income									
$x \leq 1000$	2.84	3.16	3.04	2.41	2.83	2.92	2.77	2.60	2.96
1001-2000	2.69	3.05	2.86	2.58	2.58	2.71	2.52	2.60	2.94
$x \geq 2001$	2.73	3.06	2.94	2.61	2.57	2.86	2.50	2.68	3.01
p-value	0.63	0.68	0.42	0.37	0.19	0.32	0.25	0.85	0.87
The mean difference is significant at the .05 level.									

Table 10. Evaluation of categories of products made in China

SUMMARY AND CONCLUSIONS

The high share of Chinese products in various product categories has been perceived as a threat for local manufacturers in Turkey. At the same time, lots of unfavorable news has been published in popular press about products coming from China. Despite these, various data show the penetration of Chinese products in many consumer product markets in Turkey. So the purpose of this paper was to have a better understanding of the evaluation of Chinese products by Turkish consumers. In this study rather than thinking all the Chinese products as uniform, we investigated the evaluation of products in different categories. Also we focused on the evaluation of the different attributes of the product rather than considering an augmented product. The preference of Chinese products relative to the products of different countries is explored. The respondents generally ranked Chinese products as their last choices.

The lowest rated product category by the respondents was air conditioners and heaters category. This finding seems very understandable in the context of Turkey. One of the popular advertising campaigns in 2009 winter was about a Turkish heater brand. The advertisement which is banned later was informing the consumers that the heater was not a Chinese product and giving the message that consumers must avoid buying Chinese products because of poor quality. The highest mean score was for products which we described as souvenirs and gifts. Considering the Turkish culture of gift giving this may be very understandable. Since gift giving in various occasions is very popular in Turkey, Chinese goods have provided cheap alternatives. However, the respondents' evaluation of product categories could be described as moderate since the respondents did not evaluate any product category as very good or very bad. So in this research we did not find significant differences in the evaluation of Chinese goods with respect to different product categories. The difference between the highest rated product category and the lowest rated category was just about 0.5 in the 5 pointed Likert scale.

The results regarding the assessment of product attributes show that consumers find the prices of Chinese products good. This finding is consistent with the previous findings about Chinese goods. Also they think positive about the design, creativity and fun feature of these products. The findings suggest consumers' concern about the health, prestige and safety. Considering the difference between the highest rated (mean score: 4.0) and the least rated product attribute (mean score: 1.9), we may conclude that the evaluation of Chinese goods differ when specific dimensions of the products are considered.

Although there were findings about the opinions of entrepreneurs and executives on Chinese goods in Turkey, information about the consumers' perceptions was lacking. So by exploring the consumer perspective, we have made an attempt to fill such a gap. Considering the respondents' ranking of the Chinese goods at the bottom of the country list, their evaluation regarding product attributes and categories seem more favorable. In our research respondents think favorable in some dimensions and they do not have very negative evaluations in some product categories. If the safety and performance dimensions of Chinese products are improved, more favorable opinions may be expected. Since this study was conducted in one of the most developed cities of a developing country, it is important to replicate this study in different socio-economic contexts such as different cities in Turkey and different countries. This study may provide a basis for future research on the comparative evaluation of Chinese goods versus

Turkish goods on different product categories and dimensions. Further research about the evaluations of Chinese goods by the manufacturers and retailers in Turkey may be explored to make a comparison. Learning about the perspectives of consumers, retailers and manufactures may help producing better policies on imports from China.

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CONSUMER ACCULTURATION: RESEARCH ON FOOD CONSUMPTION PATTERNS OF TURKISH IMMIGRANTS IN GERMANY

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Purpose: By the end of 2007, 2.790.000 Turkish people were living in Germany and they constitute the largest ethnic group of the country. Although Turkish people have presence in Germany for about 45 years, their potential as consumers has been ignored until recently. However, they have a spending power of about 16.9 billion euro annually. Thus, the purpose of this research is to explore the consumption patterns and shopping behaviors of Turkish immigrants in Germany. We focused on the consumption and shopping of food products, and investigated whether food consumption patterns change due to the ethnic identification of immigrants.

Design/methodology/approach: A quantitative approaches was used to collect data. We conducted a field survey in Cologne, Germany. Cologne is the city with the highest ratio of Turkish people compared to the whole population. The data was collected via a questionnaire from a sample of 438 people representing a very similar demographic make up of Turkish people in Germany.

Findings: The findings show that ethnic identification has considerable impact on the food consumption patterns. Turkish consumers still maintain their original consumption culture for food products. Since most of the respondents identify themselves with their country of origin rather than to the home country, this kind of consumption makes sense. Most of the consumers prefer Turkish retailers and Turkish brands for meat, meat processed products and for vegetables. The study has found that respondents with strong ethnic identity have more preference for the food stuff of Turkish culture, for Turkish food retailers and Turkish restaurants.

Research limitations/implications: This study provides valuable implications for ethnic marketing which has become a very popular marketing practice all around the world. Although different ethnic groups such as Hispanics, Chinese and Africans have been studied a lot, Turkish consumers in Europe have not been investigated much. Thus, this study provides a starting point for future research about the food consumption patterns and consumer acculturation of Turkish immigrants in Western Europe. The main limitation of the study is that the sample for field survey was selected just from Cologne.

Originality/value: Prior research about consumer acculturation and consumption patterns of Turkish immigrants in Germany and Western Europe is very limited. Therefore this study which is funded by TÜBİTAK (The Scientific and Technological Research Council of Turkey) fills such a gap in marketing literature. Especially Turkish and European entrepreneurs who want to target Turkish immigrants in Europe will have a better understanding of the specific characteristics of this market.

Key words: Turkish immigrants, food consumption patterns, Germany, ethnic identification, consumer acculturation

INTRODUCTION

The immigration of Turkish people to Germany has started in 1960's (Unat-Abadan, 1964, s.7; Martin, 1991: 3; Şen, 1993, s.1;). They have arrived Germany as guest workers and their intention was to stay for a few years, save money and then return back to Turkey. However, their plans for going back to Turkey were always postponed and couldn't come true because of the economic and financial conditions. Thus, today it is known that 2.790.000 Turkish people (Turkish Ministry of Labour and Social Security, 2007) are living in Germany and they constitute the largest ethnic group in the country, consequently the largest group of ethnic consumers. When Turkish immigrants crossed borders and started to live in a new home country, they took their cultures to their new homes. Naturally, the new home has its own culture. In the literature, the general process of movement and adaptation to one consumer cultural environment by members of another consumer culture is known as consumer acculturation (Penaloza, 1990). So what happens to the immigrant consumers in acculturation process? The dual pull of two cultures will affect consumer acculturation processes and outcomes in the following ways: 1) immigrants internalize the stigma of being the mainstream's other; 2) they may denounce themselves and their culture, decreasing their differences by assimilating product in attempt to fit in; 3) they may ignore or reject pressure to assimilate, cultivating instead social structures within which aspects of their previous culture are maintained; 4) they may reject aspects of their culture of origin and/or immigration and may express combinations of these strategies (Wamwara-Mbugua, 2003, p. 36-37).

Consumer acculturation studies have been very popular and research on marketing to ethnic groups has made great strides in the last 40 years (Sekhon, 2007; Odgen, Odgen and Schaua, 2002; Gentry. Jun, ve Tansuhaj, 1995; Penaloza, 1994; Wallendorf ve Reilly, 1983). Various ethnic groups such as Hispanics, Afro-Americans are investigated intensively. However, there has been little research on the consumer behavior and consumer acculturation of Turkish immigrants in Germany. German-Turkish population forms an important and growing segment within the mainstream German population. Having a spending power about €16.9 billion and constituting 3.1 % of the total population in Germany (Kraus-Weysser and Ugurdemir-Brincks, 2002), Turkish consumers deserve more research about their acculturation process and resultant consumption patterns. This group combines a youthful population profile with "social climber" status, incomes and image and a love of consumerism, as well as continued affinity to the Turkish "home" culture. (Erdem and Schmidt, 2008). Accordingly, in this study we have made an attempted to explore Turkish immigrants in Germany from the perspective of consumption patterns. Consumption patterns compasses a wide array of products and services, but in this research we focused on the food consumption. Since food is a cultural symbol and it is one of the cultural traits that humans learn first from childhood (Werbeke and Lopez, 2005), we wanted to explore food consumption patterns of immigrants and to investigate the impact of ethnic identification on food consumption of Turkish immigrants in Germany.

THEORETICAL BACKGROUND

Consumer acculturation, ethnic identification and food consumption

When an individual finds him/herself surrounded by a dominant culture other than the one he/she grew up in, that individual will simultaneously experience a desire to maintain some aspects of his original culture and adapt some aspects of the dominant culture. Ethnic identity and acculturation are two constructs that go hand in hand and need to be examined together in order to accurately identify their influence on the consumer behavior (Sobal, 2008, 32). Generally, identity is a concept rooted in answers to such questions as "What am I?" and "What am I not?" (Christian et al., 1976; Brand, et al., 1974). It is used to refer to an individual's sense of who she/he is (Shapiro and Dashefsky, 1974; Frideres and Goldenberg, 1982). Ethnic identity is used in the analysis of consumption as an indicator for the consumption behavior of ethnic minorities. Hence, those members of an ethnic minority who have a very strong ethnic identity will also differ in their consumption behavior compared to the mainstream society, as the ethnic identity also influences the way of life in the mainstream society and therefore e.g. their eating habits (Palumbo and Teich, 2004). Among the various cultural dimensions of ethnic identity on food preferences are one of the most widely accepted dimensions (Driedger, 1975; Phinney, 1990; Rosenthal and Feldman, 1992). Ethnic identity reflects the retention of behaviors and attitudes of the culture of origin. This retention should presumably be evident across many aspects of behavior which include food consumption (Laroche et al., 1993).

Previous findings about the ethnic identity and food consumption of Turkish immigrants in Germany

There are several findings about the ethnic identification of Turkish people in Germany. Polat (1998) states, that a development of the second generation to a bicultural ethnic identity is observable. However, it is indicated that a sole German identity is not evident among the Turkish second generation immigrants. Another research by Kaya and Kentel (2005) has found that 60 % of Turkish people in Germany have hyphenated identification. Half of the immigrants identified themselves as Turkish/European and 10 % as European/Turks. In his research about ethnic marketing for Turks in Germany, Erdem (2006) has found that Turkish population in Germany can be characterized as of having a relatively strong ethnic identity.

At the first years of immigration of Turkish workers to Germany, food was a serious problem. Pork was avoided, veal was expensive and lamb was not available. As a result of being uninformed and with the desire to save money, they had an unbalanced diet (<http://www.girisim.net/turkbakkal.htm>). Factors such as the improvement of the standards of living, religious prohibitions, time spared for eating and accessibility of food have changed the eating habits of the immigrants. They had got acquainted with ready to eat meals, frozen food and canned food (Narman, 1972). Turkish people had experienced significant problems in daily life, particularly about shopping and food at the first years of immigration. The first generation of immigrants had difficulties in recognizing the products sold in Germany and couldn't decide which type of food products to buy, mainly because of the language problem. Negative attitude towards pork because of the religion and culture had created confusion especially when

shopping for foodstuff. Therefore, the first generation had a fixed diet, mainly consisting of pasta, eggs and canned fish. During 1960's Turkish immigrants could not eat meat and meals containing meat in the cafeterias of the factories because of their aversion of pork. In these years Turkish wholesalers were selling the food stuff that they had brought from Turkey in front of the Guest Houses where the Turkish workers were living. At the end of 1960's German groceries called Tante Emma started to sell Turkish food.

Especially immigrants' desire for some food of their origin, lead their luggage to be full of food when they were coming back to Germany after their summer vacations in Turkey. Immigrants' need and desire for Turkish food could not be satisfied by German groceries and supermarkets at that time and there were no other alternatives to satisfy this need. The problem of finding food has been started to be solved in 1970's. German supermarkets noticed the demand for Turkish food and ordered Mediterranean fruits and vegetables until the first groceries opened in the 1970s (Eryılmaz, 2002).

Today it is possible to find Turkish food almost in all part of Germany. Although Turkish migrants are represented in 100 different market sectors in Germany the weight still lies in the retail (34.9 %) and gastronomy (23 %). (<http://freenet-homepage.de/alamanci/SAYFALAR/demografi.htm>) A survey conducted by the Zentrum für Türkei Studien in Bonn(now in Essen) showed that a very high percentage of Turkish entrepreneurs in Europe active in catering. Fast food stand owners and the small storekeepers who sell Turkish food and imports from Turkey constitute the majority of this group of entrepreneurs. With very few exceptions people can find all sorts of Turkish food and ingredients in these stores, sometimes a better quality than those found in Turkey (Çağlar, 1995, p. 55; Çağlar, 1998).

METHOD

The purpose of this research is to explore the effect of ethnic identification on food consumption patterns of Turkish immigrants living in German. Firstly, we have found how the respondents felt about their ethnic identity and classified the sample in terms of strength of ethnic identification. Specifically, our study focused on the following research questions:

1. What are the consumption frequency of foods that may be referred as belonging to Turkish culture and German culture and the effect of ethnic identification on the consumption of food stuff?
2. Do the immigrants bring food from Turkey and if so what type of food stuff are brought from Turkey?
3. What is the effect of ethnic identification on the preference of retail outlets for food buying?
4. What is the effect of ethnic identification on the preference of restaurants?

The research study was conducted in Cologne, Germany. We have chosen immigrants living in Cologne to gather data since the ratio of Turkish immigrants in Cologne is the highest compared to the whole population. The research sample was selected according to snowball sampling technique where education, age, income and generation were used as profile variables.

In addition, 15 in-depth interviews with Turkish people living in Cologne were conducted in October 2008 by the authors themselves in order to understand Turkish immigrants' consumption behaviors and patterns. These interviews were also employed in finalizing the structured questionnaire, which was used in the field survey.

The field survey was conducted by 20 interviewers who are Turkish students at the University of Cologne. Before the fieldwork started, the authors trained the interviewers about the objectives of the research and procedures of the fieldwork. Then the interviewers gathered data from the selected sample of respondents via face-to-face interview technique. The data gathering process has been completed in May 2009 and June 2009. 460 respondents were interviewed, among which 438 interviews were decided to be eligible for analysis. The characteristics of the research sample are depicted in the table below.

FINDINGS

Demographic profile of respondents

Table 1 indicates the demographic profile of the sample. The sample consisted of 438 Turkish immigrants, of whom 55 percent were male and 45 percent were female, and the percentages of married, single and widowed respondents were 61, 32 and 7 respectively. Regarding the age distribution of the respondents; 16% of the sample is in 18-24 age range, 17% in 25-30 age range and 19% in 36-45 age range. The ratio of respondents in 46-55, 56-65 and over 65 age ranges were 3%, 6% and 1%, respectively. The age structure is similar to the age structure of the Turkish population in Germany. The demographics on monthly income identify two dominant categories: 1.001 € -2.000 € and 2.001 € -3.000 €. Approximately 18 % of the respondents have monthly income over 3.001 € and 12% of the respondents have a monthly income less than 1.000 €.

Regarding the education of the sample there are two groups as who were educated in Turkey and who had education in Germany. The first group who were educated in Turkey consists of 241 respondents. There were a few immigrants (5%) in the sample without formal education but who were literate. 19% of immigrants have elementary degree, 15 % of immigrants have junior High School degree, 36% of immigrants have high school degree and 25% of immigrants have college/university and above degree. The second group who were educated in Germany are consists of 178 respondents. 17% of immigrants have Hauptschule degree, 23 % of immigrants have Realschule degree, 10% of immigrants have Gymnasium degree and 50% of immigrants have Universität and above degree.

Gender		Marital Status	
Male	55%	Married	61%
Female	45%	Single	32%
		Widowed	7%
Age		Educated in Turkey (n=241)	
18-24	16%	Literate	5%
25-30	17%	Elementary School	19%
31-35	19%	Junior High School	15%
36-45	27%	High School	36%
46-55	19%	College/University	25%
56-65	6%		
66 ≥	1%	Educated in Germany (n=178)	
Income		Hauptschule	17%
1.000 € or <	12%	Realschule	23%
1.001 € - 2.000€	44%	Gymnasium	10%
2.001 € - 3.000€	26%	Universität	50%
3.001 € - 4.000€	11%		
4.001 € or >	7%		

n=438

Table 1. Demographic Profile of Respondents. Ethnic identification of the respondents

In this research firstly we have measured ethnic identification of Turkish people in Germany. The ethnic identification was measured by nine items, mostly adapted from previous ethnic identification scales (Alvarez, 2004, s. 68; Zea et al, 2003; Laroche et al, 1996). Table 2 shows the scale that we have used in this research. We have categorized the respondents into three levels in terms of their Turkish identification due to the responses to the scale items. Half of the respondents have high ethnic identification, 12 % have medium level of identification and 38% of the respondents have weak ethnic identification. (Figure 1)

	<i>Alpha (α)</i>
<i>I am proud of my country of origin</i>	.702
<i>I feel good about being Turkish</i>	
<i>I feel associated to my country of origin</i>	
<i>I feel proud of Turkish heritage</i>	
<i>I feel proud about being German</i>	
<i>I feel part of Germany</i>	
<i>I feel that I'm thinking and behaving like a German</i>	
<i>I feel comfortable with the German way of life</i>	
<i>I feel at home in the Germany</i>	
<i>1= strongly agree</i>	
<i>5=strongly disagree</i>	

Table 2. Ethnic Identification Scale

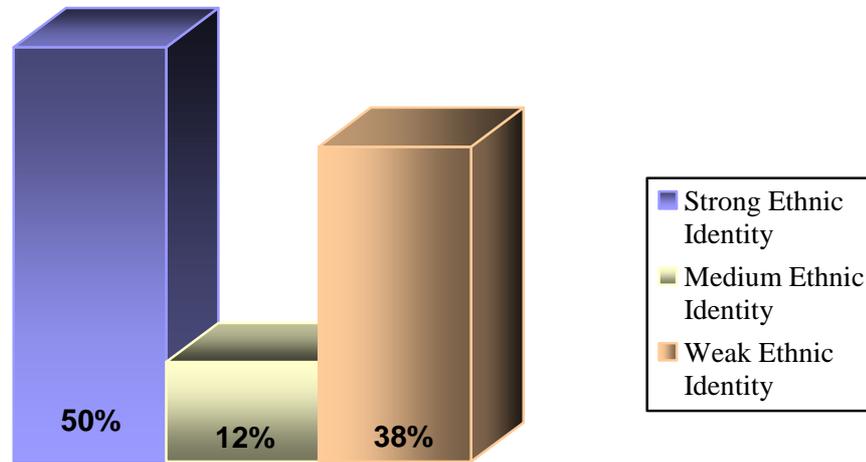


Figure 1. Levels of the Felt Ethnic Identity of the Respondents

Consumption of the food products

In order to learn about food consumption patterns we have provided consumers a list of food stuff and meal that are representative of Turkish culture and German culture. There was not a list of such food products that was used in previous studies and in the context of a global world where the preferences and tastes of people are getting similar preparing such a list was not easy. Thus, in order to determine the list of both cultures' food and meal we have asked the opinions 15 participants during the in-depth interviews and we combined them with our own observations. Then we have asked the consumers consumption frequency of these food stuff with a scale where 1 represents frequent, and 5 represents never. (Table 3)

	Total Sample	Strong Ethnic Identity	Medium Ethnic Identity	Weak Ethnic Identity	ANOVA <i>p</i>
Yoghurt/ayran ^{Turkish}	1.72	1.53	1.74	1.95	.003*
White Cheese(Turkish Style) ^{Turkish}	1.76	1.62	1.74	1.94	.007*
Turkish Tea ^{Turkish}	1.83	1.67	1.78	2.05	.003*
Olive for Breakfast ^{Turkish}	1.84	1.69	1.94	2.00	.017**
Rise ^{Turkish}	1.92	1.87	1.94	1.98	.494
German Bread**	2.23	2.43	2.19	1.98	.001*
Lentil ^{Turkish}	2.38	2.29	2.49	2.48	.147
Instant Coffee ^{German}	2.39	2.55	2.01	2.29	.012*
Turkish snack(almond, hazelnut etc) ^{Turkish}	2.44	2.35	2.52	2.53	.226
Dry bean ^{Turkish}	2.52	2.38	2.58	2.67	.039**
Turkish Soudjouk/Bacon ^{Turkish}	2.53	2.41	2.45	2.70	.024**
Salami/sausage ^{German}	2.54	2.49	2.31	2.66	.098
Mineral Water ^{German}	2.67	2.78	2.72	2.50	.109
Pide (Turkish Pizza) ^{Turkish}	2.88	2.75	2.74	3.07	.007*
Turkish Jam ^{Turkish}	2.88	2.52	3.27	3.23	.000*
Chickpea ^{Turkish}	2.64	2.46	2.76	2.83	.003*
Lahmacun (Turkish Pizza) ^{Turkish}	2.96	2.87	2.74	3.14	.004*
Doner- Kebap ^{Turkish}	2.98	2.85	2.78	3.16	.006
Manti (Turkish Ravioli) ^{Turkish}	3.06	2.85	3.21	3.30	.000*
Turkish BageI ^{Turkish}	3.07	2.86	3.23	3.28	.000*
Fresh Meat Ball/ Stuffed mutton balls ^{Turkish}	3.25	3.13	3.27	3.40	.058
Turkish Coffee ^{Turkish}	3.38	3.28	3.25	3.54	.040**
Croissant ^{German}	3.35	3.50	3.49	3.12	.003*
Beer ^{German}	3.88	4.24	4.11	3.33	.000*
Asparagus ^{German}	3.97	4.03	4.17	3.84	.084
Raki ^{Turkish}	4.17	4.38	4.45	3.80	.000*
Gamy meat ^{German}	4.34	4.34	4.52	4.29	.334

Table 3. Consumption Frequency of the Turkish and German Food Stuff by the Respondents with Different Level of Felt Ethnic Identity. * $p < .01$ ** $p < .05$. 1:very frequent, 5: never

The table 3 shows the consumption frequency of several food stuff that can be referred as belonging to Turkish and home country cultures. The table also shows the consumption differences among the respondents who are categorized as feeling high, medium and low level of ethnic identity. Analysis of the findings is not easy and should be done with caution considering the fact that some of the food staff given in the table has different consumption frequencies in an average diet and for example consumption of some beverages are influenced by the religious attitudes of the people. For instance, beer is taken as a beverage of German culture and raki is taken as a beverage of Turkish culture in this research. Since both of them are

alcoholic beverages and alcohol is prohibited by Islam religion the consumption rate of these beverages are very low. As it is seen from the table, consumption frequency of Turkish food increases as the consumers' level of ethnic identity increases. We have conducted ANOVA test to see if the differences in consumption levels were significant among three groups of ethnic identification. According to test results, Turkish immigrants with a strong ethnic identification tend to consume more of the food associated with their original culture. However, Turkish immigrants with a weak ethnic identification also seem to consume Turkish food. Weak ethnic identifier consumers consume more of the German food compared to the consumers with higher ethnic identity levels.

Food brought from Turkey

In Turkey one of the important symbols representing Turkish immigrants in Germany was a luggage or a car full of Turkish food such as tomato paste or dried peppers. Especially before 90's when the immigrants had used their cars instead of plane for transportation this was a very common practice. In our research we wanted to explore if it is still a retained habit to bring food from Turkey to Germany. We asked the respondents if they had brought with them some foods and/or if they have ordered their friends/acquaintances to deliver some products from Turkey in the last 3 years. The table 4 below shows the percentage of respondents who have brought some of the listed food stuff from Turkey. As it is seen from the table mostly Turkish snack was brought from Turkey(56% of the sample), followed by Turkish delight(54%), Turkish coffee 41%) and dried fruits and vegetables (41%).

	<i>Frequency</i>	<i>Percent</i>
<i>Tomato paste</i>	121	28
<i>Dry legumes</i>	103	24
<i>Turkish snack(almond, hazelnut, peanut etc)</i>	274	56
<i>Turkish delight</i>	235	54
<i>Turkish Coffee</i>	181	41
<i>Dried Fruits and vegetable</i>	178	41
<i>Spices</i>	190	43
<i>Cheese</i>	127	29
<i>Fresh fruit and Vegetable</i>	52	12
<i>Bakery products (such as home made pasta)</i>	87	20
<i>Baklava /Dessert</i>	112	26

Table 4. Food Stuff Brought From Turkey

	<i>Ethnic Identity</i>				<i>p</i>
	<i>Total Sample</i>	<i>Strong Ethnic Identification</i>	<i>Medium Ethnic Identification</i>	<i>Weak Ethnic Identification</i>	
<i>Tomato paste</i>	28%	28%	39%	24%	.118
<i>Dry legumes</i>	24%	27%	29%	22%	.554
<i>Turkish snack(almond, hazelnut, peanut etc)</i>	56%	60%	49%	52%	.150
<i>Turkish delight</i>	54%	57%	57%	49%	.255
<i>Turkish Coffee</i>	41%	48%	37%	33%	.012**
<i>Dried Fruits and vegetable</i>	41%	50%	31%	32%	.001*
<i>Spices</i>	43%	49%	43%	37%	.072
<i>Cheese</i>	29%	33%	33%	21%	.035**
<i>Fresh fruit and Vegetable</i>	12%	17%	10%	6%	.003*
<i>Bakery products</i>	20%	23%	28%	14%	.031**
<i>Baklava /Dessert</i>	26%	25%	29%	25%	.794

Table 5. Chi Square Results for Food Brought and Felt Ethnic Identity. * $p < .01$ ** $p < .05$

Despite the fact that most of the products listed above are available in Germany, it seems that it is still a habit for Turkish immigrants to take food from Turkey. It may be possible that the tastes of such products may not be similar or these products may be a reminder of their origin cultures. Chi-Square analysis regarding the impact of ethnic identity on types of food brought from Turkey shows that more of the Turkish immigrants with a strong ethnic identification tends to bring food from their home country (Table 5). Turkish people who have a weak ethnic identification also bring food from Turkey, but lesser amount of them continue this habit. The below quotation from a research about Turkish consumers in Denmark may also help to interpret our findings.

“Consumption of Turkish food works towards the reinforcement of the Turkish cultural identity as the members of the immigrant community gather together around a dinner table and share their cultural heritage. While the first generation Turkish immigrants continue to eat in traditional Turkish ways (baking bread and Turkish pastries at home, bringing dried goods from Turkey), the descendants integrate Danish food more into their meals” (Üçok, 2006).

Preference of shopping outlets for food buying

We have also asked the respondents the type of outlets they prefer for food buying. We have measured the visiting frequency of various types of shopping outlets including both German and Turkish retailers. The list of shopping outlets for food is based on authors' observation in Cologne and in-depth interviews with 15 Turkish people living in Cologne.

	<i>Means</i>	<i>S. D.</i>
<i>Discount markets as Aldi, Lidl or Penny</i>	1.97	.99
<i>Turkish groceries, small markets</i>	2.25	1.13
<i>German bakeries as Kamps</i>	2.57	1.47
<i>Turkish butchers</i>	2.68	1.29
<i>Turkish bakeries</i>	2.88	1.53
<i>Street bazaars</i>	3.44	1,41
<i>Super or Hyper markets as Renee or Metro</i>	4.04	1.21
<i>German delicatessen</i>	4.18	1.25
<i>Organic markets</i>	4.56	.89

Table 6. *Types of Outlets for Food Buying. 1= more than once a week (very frequent). 5= several times in a year (seldom). n=438*

As it is seen from the table 6, discount markets are visited more than the other retailers for buying food stuff followed by the Turkish groceries. The least preferred shopping outlets are organic markets and German delicatessen that sells generally German food.

Participants of the in-depth interviews emphasized meat consumption as a concern in Germany. Accordingly we have asked several questions about meat consumption. Table 7 shows that Turkish immigrants are very sensitive on this issue. We did not question the religious attitudes of respondents in this research but to a large extent the responses to these questions can be interpreted by religious considerations and culture. As the Chi square analysis shows, the level of ethnic identity influences meat consumption. Respondents feeling strong ethnic identity are more cautious about hellal meat, pork and buying Turkish brands of meat compared to those with a weaker identification (Table 7).

	<i>Mean (Total Sample)</i>	<i>Strong Ethnic Identification</i>	<i>Medium Ethnic Identification</i>	<i>Weak Ethnic Identification</i>	<i>p</i>
<i>Buy only hellal meat</i>	1.41	79%	68%	30%	.000*
<i>Consider meat processed products to be fork free or hellal</i>	1.49	81%	68%	28%	.000*
<i>Buy only Turkish brands of meat processed products</i>	1.31	88%	68%	45%	.000*
<i>Want the owner/employee of the meat retailer to be Turkish</i>	1.40	65%	53%	30%	.000*

Table 7. Chi square Results for Meat Consumption and Felt Ethnic Identity. * $p < .01$

Eating out of home

Another question to learn more about food consumption was the preferences of respondents when they eat out of home. We have asked if they go out for eating and about the frequency of this occasion. As seen in the table 8,5 % of the respondents have indicated that they never eat in the restaurants/cafes etc. and 17 % eat a few times in a year. 30 % of the respondents indicated that they eat out of home at least once a week.

	<i>Frequency</i>	<i>Percent</i>
<i>Once a week or more</i>	133	30
<i>Once in two weeks</i>	96	22
<i>Once a month</i>	114	26
<i>A few times in a year</i>	73	17
<i>Never</i>	22	5
<i>Total</i>	438	100

Table 8. Frequency of Eating Out of Home

We have questioned where they prefer to eat when they go out for lunch/dinner.

	Mean (Total Sample)	Strong Ethnic Identification	Medium Ethnic Identification	Weak Ethnic Identification	<i>p</i>
Turkish restaurants	2.00	1.79	1.82	2.32	.000*
Other countries restaurants such as Italian, Chinese restaurants	3.29	3.73	3.17	2.77	.000*
Fast-food restaurants such as McDonald's, Burger King	3.34	3.39	3.33	3.28	.422
Muslim country restaurants such as Syria, Lebanon restaurants	3.99	3.97	3.78	4.07	.194

Table 9. Chi Square Results for Preferred Restaurants and Felt Ethnic Identity.

1:always 5: never. * $p < .01$

The respondents mostly preferred the eat at the Turkish restaurants, followed by the restaurants of non-Muslim countries restaurants such as Italian, Chinese restaurants and fast-food restaurants such as McDonald's, Burger King. The least preferred restaurants were other Muslim countries' restaurants. One of the interesting finding of the research was that about % 40 of the respondents have never tried German cuisine and % 40 have reported that never cooked meal in their home that doesn't belong to Turkish culture (Table 9).

Acculturation process may provide different outcomes for immigrants. We have asked immigrants if any change have occurred in their eating/drinking habits during their stay in Germany. 41 % of the sample's response to this question was "yes". As the Table 10 demonstrates, just one third of the respondents feeling strongest ethnic identity have expressed that some change has occurred in their eating/drinking habits. However, more than half of the consumers feeling weak ethnic identity have told that they have experienced a change in food habits.

	Ethnic Identity				<i>p</i>
	Total Sample	Strong Ethnic Identification	Medium Ethnic Identification	Weak Ethnic Identification	
Change in the eating/drinking habits	41%	35%	38%	51%	.006*

Table 10. Changing Eating/Drinking Habits and Felt Ethnic Identity (t-test results). * $p < .01$

SUMMARY AND CONCLUSIONS

In this study, we have made an attempt to explore food consumption patterns of Turkish immigrants in Germany. We have focused on consumption and shopping practices related to

food in this study. As mentioned in the paper ethnic identity reflects the retention of behaviors and attitudes of the culture of origin. This research also justifies that retention of food consumption habits of Turkey(country of origin) is very apparent among immigrants. Although retention of food consumption habits is more evident on consumers who are feeling strong identification to their original countries, the weak ethnic identifiers also retain their food consumption habits. More than half of the sample seems unaffected from the German culture in terms of food preferences. Respondents who feel strong Turkish identification have more preferences for Turkish food, Turkish restaurants and Turkish food retailers. In spite of many Turkish and German retailers selling Turkish food and plus many restaurants serving Turkish food it is interesting that Turkish people still retain the habit of bringing food from Turkey. The respondents with stronger ethnic identification tend to bring food more than the weak identifiers.

In this paper we have just analyzed the effect of ethnic identification on food consumption. Further analysis may provide more insights to understand the food consumption of Turkish people in Germany. The effect of generation, duration of stay, religious attitudes and demographic variables such as income, education, age, and gender may be analyzed to have a better understanding of consumer acculturation process. Since this research was conducted in Cologne, the findings from this study may represent the immigrants living in a big urban area where many type of retailers and restaurants are available. Immigrants living in rural areas may exhibit different food consumption patterns.

The findings of this paper may provide implications for entrepreneurs. Especially Turkish and European entrepreneurs who want to target Turkish immigrants in Germany will have a better understanding of the specific characteristics of this market. The findings may be used by food marketers/retailers for market segmentation based on ethnic identity level of immigrants. Also the findings about products brought from Turkey may be used for decisions about product assortments and advertising messages.

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FORMING OF CORPORATE IMAGE IN UKRAINE: FEATURES AND TENDENCIES

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At the beginning of XXI century Ukrainian market, being integrated in a world economy, accepts international tendencies to the increase of role of intangible assets in the receipt of income. Ukrainian business starts to pay more attention to image and to the corporate keeping among key audiences. This process in the Ukrainian economy was begun by regional offices of multinational corporations – Coca-Cola, Philip Morris, Nestle – strategic investors which position themselves as national producers. Home enterprises of fuel and energy complex, finances, food retail industry, in the conditions of hard competitive activity and dynamic of market development fully feel the necessity of forming and advancement of own corporate image both on Ukrainian and world, market. Priority export competent industries are under threat of worsening of the external state of affairs and loss of price advantages. It induces them to change strategy and displace accents from a price competition to an imaginary competition.

The row of factors cause an increase of attention of research scientists and leaders of companies to the corporate image.

Firstly, today in Western countries increase the requirements to permanent organic growth of enterprises, that forces executive directors to estimate intangible assets (including goodwill) for getting the exact proofs of success. Thus earlier companies tended to high up the cost of goodwill to make the prices of their stocks higher. Today they are forced to write off the part of goodwill and consciously to be ready for the falling of their market price. Such situation stimulates the search of more exact methods of money appraisal of image.

Secondly, demand of consumers, their minimum conservatism, thirst of experiments with which they substitute one goods and services for another – it requires an additional efforts from companies to win the loyalty of clients. The stable positive image allows companies to exceed the bounds of exhausting price competition and choose strategy of imaginary competition.

Thirdly, the necessity of imaginary management is related not only to demand but also with suggestion. Rapid technological progress and the obsolescence of capital assets provoked by it automatically reduce the particle of the fixed assets and promote the particle of intangible assets in the structure of company's balance. On such conditions guidance no longer can ignore an image, effective management of which allows to attract additional investments and promote the balance and market price of company.

Fourthly, the image of organization has completely definite economic potential, especially in trade, sphere of financial and unfinancial services, where the level of trust has not lesser value, than other absolutely financial indexes.

Besides, exceptionally financial indexes, not always can explain the cause-effect connection and often mislead guidance.

All mentioned earlier facts were instrumental in more active study of concept of image and development of methods of estimation with the purpose of subsequent more effective management and purposeful correction of companies' activity.

In Western Europe and United States of America to the study of marketing aspect of image devote their works C.J. Fombrun, G.Daunting, K.J. Roberts, W. Raylens, T. Ambler, J. Volker and others. Connection between a corporate image and perception of employees the company investigate in his works S. Khogan. Works of L. F. Dzhey and others are devoted to financial aspect of estimation and account of image (goodwill).

On postsoviet space to the elaboration of imaginary theories pay attention in their works M. Tomilova, T. Primak, V. Shkardun, T. Akhtyamov, I. Aleshina, V. Kureyko. In Ukraine A. Mendrul and V. Larcev develop the methods of estimation of goodwill.

One of basic problems of image research in Ukraine is disparity of English and Ukrainian terminology which resulted synonymous application on denotation of one concept of a number of absolutely different terms in economic literature. Such inconsistency of key category does not allow to build the clear structure of image and, accordingly, conduct him complex estimation.

The intangible assets of enterprises became the object of active researches of economists and ponderable factor of income creation yet on the beginning of 80th century. Then companies began actively to produce their own image and by this try to win loyalty of consumers not to the separate product, but to all company. It enabled to increase the volumes of output (and, accordingly, incomes) from the already produced commodities and services and preliminary to create the circle of potential consumers for new production.

Active development of imaginary theories began in the United States of America and countries of Western Europe - wherein a powerful competition at the fund market required the search of the new approach to the increase of market price of company. In economic literature the concepts of "intangible assets", "corporate image", "corporate reputation" and "goodwill" began to be used with that frequency, as demand, supply and maximization of income. Absence of clear limits between these categories and relative novelty of scientific conceptions of image first of all resulted the concentration of researcher's attention on explanation of actuality of problem and development of methods of image estimation, but not on determination of basic concepts.

The Ukrainian researchers of image actively drew on accomplishments of western scientists, adapting them to the terms of the Ukrainian economy. Presence of the Ukrainian analogues alongside with the foreign terms in their disposal resulted transformation of mentioned earlier list to the almost synonymous row and was completed with "appearance", "good name", "business reputation" and "corporate brand". Such voluntary use of terminology results misunderstanding and complicates development of the constituents system of corporate image.

Because of it, foremost it is necessary to give determination actually to the concept „image" and to find out a difference between terms, which circulate in literature on denotation of this category.

In Ukrainian and Russian economic literature the most widespread is such determination of image of organization:

An image of organization is integral perception of organization by the public different groups, which is formed on the basis of information about the various sides of organizations' activity which are saved in their memory; existing in people's consciousness system of presentations and estimations the object of which is a company.

Ukrainian economists T. Primak and M.V.Tomilova select two constituents of image of organization - descriptive and estimating. A descriptive constituent is the aggregate of all knowledges about the organization, accessible for every group of stakeholders. An estimating constituent is related to attitude of public toward a firm. It exists by virtue of that the information, which is saved in memory, is not perceived indifferently, but excites estimations and emotions. To divide these two constituents of image is possible only very conditionally. In reality they are inseparably linked and come forward as the unique unit [1, p. 249], [2, p. 48].

On Jean-P'er Boduan's thought, the image of company depends mainly from estimation, that stakeholders take away on two indexes – action and conduct [3, p. 60]. Thus under the influence he understands the character of company's activity, condition of work, and consequences of its functioning for surroundings. A conduct is attitude of corporation toward society. Basis for the stakeholder's estimations, company's actions and conduct are public agreements, shown mainly in legislative acts. But basic in the Boduan's theory is a thesis that a public idea is formed under act of the system of values, which stands higher then actions and conduct. However what legal activity of company was from the point of view a constitution or other acts of the legal adjusting, if it does not coincide with the system of values of public, it will not be legitimate and, accordingly, will not have a positive image.

Michael Elashkin, director of company Elashkin Research, one of not many Russian businessmen, which made an attempt divide the concept of brand, image and reputation [4, p.14]. so, according to his opinion, a brand is a constituent of reputation which on condition of existence of strong brand makes an additional value in reputation. Vice versa, reputation promotes successful branding. If a brand (even corporate) can exist separately from a company and be sold by other participants of market, reputation is inseparable from organization, from business on the whole. Concerning an image, his company creates it independently by marketing specialists and PR-services. A company will be able to get beautiful reputation, if this artificially created image will be accepted by society. The illusion of positive image can be created, but it will exist only until then, while clients and partners will not see a difference between this illusion and real actions of company.

Although American researcher T. Ambler considers such differentiation far-fetched and inappropriate. According to his opinion, the author of this work tries to define that image is nothing other then a brand (or the capital of brand), which is a basic intangible asset and personifies the created additional value. The industrial marketing and electronic commerce (B2B) try to avoid a concept brand, which initial was used only on commodity markets, and simply replace it with business reputation or goodwill. Consequently, T. Ambler, sees not a single of principle difference between these categories, except of a particular branch use [5, p.17].

The specialists of international consulting company PBN consider reputation one of components of company appearance. Other his component is an image. Thus, as well as M. Elashkin, they support a thesis that image is produced by the company purposefully, and reputation exists in opinions of people not depending on the desire of company. And gap between an image and reputation is pernicious for a company [6, p.20]. Although we completely agree with that the company can purposefully form part of the image in consciousness of people, what will be told about, but consider completely groundless a thesis that an image and reputation is two constituents of company appearance. In fact English "image" correctly to translate into Ukrainian as "appearance". Consequently, after the above-mentioned hypothesis, appearance is part of itself, and it is nonsense.

Taking into account all of afore-mentioned, to our opinion, most adequate essence of concept there is such variant of determination of image:

The image is the system of subjective presentations and estimations of organization of different groups of public, which exists regardless of desire of company and can be only sent by it in necessary direction.

Subjectivity of this system is to the effect that a company will not have an image until it external registration, conduct, marketings actions will not be reflected in the consciousness of stakeholders while they will not have the own judgement (positive or negative) concerning to activity of company.

Any aspect of functioning of organization can be examined in a short-term and long-term period. An image is not an exception. And exactly from the point of view long- or short-term we select two components an image: first impression and reputation (figure 1).

The first impression is presentation and estimations of organization by public different groups in a short-term period to the direct contact with it.

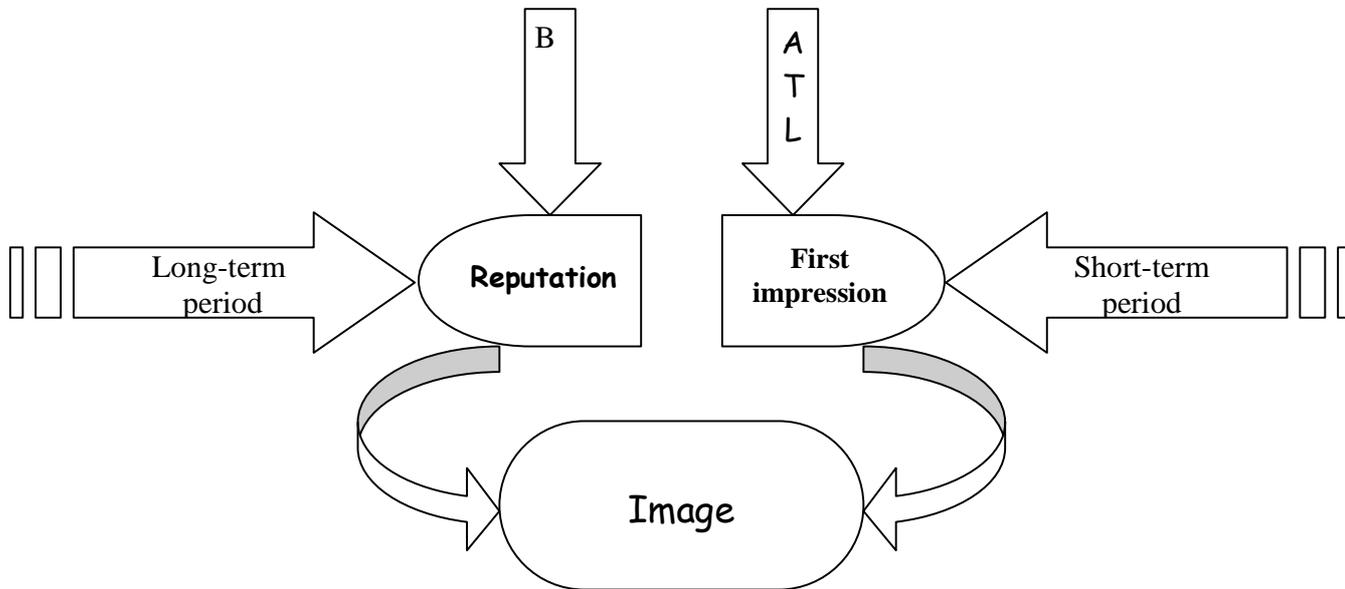


Figure 1 – the image of a company in a short-term and long-term period

In forming of the first impression a major role plays an original appearance (environment), and also publicity policy. Facilities of ATL (“above the line”) – of traditional direct advertising – build a brand, image, create legend, cause certain associations. With the help of such facilities it is the most easy for company to offer own vision of the image to stakeholders. But it costs to remember, that the first impression will not play a decision role in fixing of image in a long-term period, that is why activity of firm in this direction will carry tactical, but not strategic character only.

Reputation is an stakeholder’s estimation of company conduct in a long-term period. A determinant role here is played not by declarations, but by the real acts which determine attitude toward the firm of market participants. In a long-term period exactly reputation will make the lion’s share of image. Despite reputation fall under company’s influence more less then the first impression, marketing specialists can correct it by the instruments of BTL (“below the line”). PR measures, promotion-actions, merchandising, direct-marketing in practice incarnate dialog with an user. But only efforts of marketing department will be not enough for forming positive reputation, in fact it has least direct contacts with stakeholders and effective work of all of departments of the company will play a major role in this process, beginning from the greatest guidance and concluding a sales department.

In the process of forming in consciousness of representatives of different groups, related to company’s activity, its image, a major role is played by intercommunication between reputation and first impression. Dug up between these components is baneful for a company. What positive the first impression is, created mainly by publicity actions was not, if the result of actions and conduct of firm (qualities of commodities and services, service, financial

performance, level of social indicators, are responsibility and others like that) is negative reputation, at such terms a company it will not be succeeded to produce a proof positive image which will allow to get additional profits.

W. Raylens, president of Asia Pacific Burson-Marsteller, marks that every company has that reputation (and accordingly and that image) which it deserves [7, p.27], and no publicity budgets, scale support of sporting and cultural events, maximally creative PR-actions of have nothing in common with a proof positive image. Formula in obedience to which scale publicity budgets equaled a strong corporate image worked in 60th or 80th the previous century. But today considerable charges do not guarantee a proof image. A truth spreads far quick than attractive tempting advertising carries out influence on the first impression of consumers and societies on the whole. The first impression which is not based on reality is unsteady and impressionable. ATL and BTL facilities are needed in an order to help marketing specialists to correct image, to influence on him, but there is an idea that it can provide boundless growth of incomes is only a myth.

If the first impression dissatisfied the subject of market relations, it more credible will refuse to collaborate with a company at all until this component of image for the given to the subject will not change under act of external or internal factors. If it however agree to collaboration and reputation will fully confirm the first impression, existence of proof negative image will be provided for a company. If reputation and first impression is not equivalent, in a next period of time stakeholder will look over the first impression and again find oneself at the beginning of chain.

Under circumstances of the positive first impression, stakeholder will have a desire to get to know more activity of company. On the basis of these relations or already made by others judgements about such relations, a company image will be formed in stakeholder's consciousness. If reputation will answer the first impression, as a result will be existence of proof positive image. Under the other circumstances in next moment of time the correction of the first impression will take a place and we will get the exclusive circle of co-operation of reputation and first impression.

Both reputation and first impression, can change in course of time, that is why the purpose of company is the permanent monitoring and regular estimation of image after all of his constituents.

The concept of image and the concept of brand shouldn't be equated. A brand first was used as a complete synonym to the trade mark and touched mainly consumer goods. Today the concept of brand considerably broadened and fully seceded from TM and exceeded a supply consumer market. Today **brand** – it the name and logotype, not only unique suggestion of commodities or services but also appearance which is formed for consumers as a reaction on this suggestion, system of associations and reflexes, related to this product. Existence of brand foresees the presence of proof associations with a product, which select him among competitors and create a additional price. Money estimation of additional brand value as an intangible asset, created in the process of marketing activity, is named the capital of brand or money estimation of brand capital.

Professor D. Aker was the first who popularized conception of capital. In his work "Management of brand capital ", which was published in 1991 he determines the capital of brand as set of assets and obligations, related to the brand, its name and character, which are added or subtracted from a value, offered as a product or service [8, p.15]. Basic components of brand capital, which are selected by D. Aker, is loyalty, knowledge about the name, perception of quality, associations, related to the brand, rights on intellectual property.

It follows to pay a attention to that a brand touches a product (commodity or service) which offers company, not depending on that, whether each has a separate brand of products of firm, whether move forward the brand of company at the market. Besides a brand as appearance of commodity or service is formed mainly on the basis of supervisions, reviews and reactions of consumers, – basic stakeholders of the company, not paying attention to opinions of other subjects of business-relations. For this reason, to our opinion, it is not appropriately to equate the concept of brand with the concepts of image.

The unique concept which, on our opinion, maximally related to the category a "image" is a concept "goodwill". **Goodwill** (from English – *goodwill* is "prestige of firm") is the money estimation of part of company's intangible assets, formed on the basis of positive image. Unlike an image, goodwill does not foresee determination of high-quality descriptions of company image, but only is a sum on which the cost of assets is increased if there is positive imaginary descriptions. Because of goodwill is a financial index and his major aspect is a money estimation, most economists examine this concept self through the prism of method of estimation and determine goodwill as special immaterial asset, inseparable from an enterprise, which is determined as a difference between the cost of all of intangible assets and cost of those intangible assets which can be estimated separately [9, p. 77].

Thus it should be noticed that goodwill arises up only when a company gets incomes, higher then the current market rates of profitableness on tangible and separated intangible assets. It does not mean that at zero goodwill an image absents in firms. It only specifies on yet not formed positive appearance of company by stakeholders so, that it can provide it's overcomes. Uneffective work on creation, management and correcting of image can result the absence of overcomes or situation, where goodwill becomes negative and transforms on badwill. Badwill does not mean that a firm has a negative image or is unprofitable, although it is not eliminated, - he only tells that the profitableness of this enterprise is less than market level.

Goodwill as an immaterial asset has three basic descriptions:

- Goodwill – it the immaterial asset undissociated from an enterprise that can not be sold separately;
- Goodwill exists only at presence of surplus profits;
- Goodwill is not amortized.

Consequently, goodwill, on its essence, is a money estimation formed by consumers, employees, business-partners and other interested subjects of organizational image. Functioning each of these two terms has the expressly outlined limits:

an image is a category of marketing specialists which examine the high-quality estimation of company appearance;

goodwill is a term of financial department and book-keepings which give the quantitative estimation of this type of immaterial assets.

Taking into account all that, we should clearly distinguish the brand of company, which can exist separately from it and can be sold or passed in the use (for example, on chart of franchising), and its image which is the system of presentations and estimations of subjects of market relations concerning this company and there can not be a pose by it. At the same time it is impossible to equate reputation of enterprise and its image. Reputation is only component part of image and is formed in a long-term period. Other constituent of image – first impression – is though short-term, but by no less important part of image. Main task of managers of a company – is to provide a minimum break between the first impression and reputation in the process of forming, monitoring, high-quality estimation and correction of image, on the whole or his separate constituents. Quantitative estimation to the results of marketing activity of a image management gives a financial department, expecting a difference between intangible assets and those their constituents, which can be certain separately, that is goodwill.

Abstract, on the first sight, concept of image of company has the fully concrete measuring. It consists of certain set of elements, densely related to each other, each of that touches the certain aspect of company activity. Breaking up the image of enterprise on constituents, researchers use two approaches:

- selection of elements by objects, image each of that is the constituent of general image of company;
- selection of elements by subjects of perceptions, which give an estimation a company and its activity.

In obedience to the first approach the image of organization can be considered as a aggregated index which includes eight basic component: image of commodity, image of consumer, image of stuff, image of main guidance, business-image, social image, visual image and internal image. A similar chart is offered in works of M. V. Tomilova and T. O. Primak [1], [2].

The image of commodity is an estimation of features, technical descriptions of making of commodity, its possibilities to satisfy the necessities of consumers. The basic indexes of image of commodity is its technological and consumer quality, price competitiveness, and also quality of concomitant services and service.

The image of consumer is a public picture of having a special target segment of company and its estimation. A clients' lifestyle of this company, their character and social status, are reflecting on organization, at the same time fastening on it the image of company, created for satisfaction of necessities exactly of this group of consumers.

The image of personnel is a public judgement about the personnel of enterprise. This element of organizational image acquires a decision value for the enterprises of service sphere and trading companies, which personnel is in a direct contact with consumers. In these industries a competence, level of culture and socially demographic descriptions of employees, has a not less influence on the eventual image of organization, than image of commodity.

The image of main guidance is an estimation of administrative command of enterprise as whole, which is formed by the personnel of enterprise. Among major factors, which produce an

image of main guidance – his exterior, features of conduct, socially demographic descriptions, parameters of unbasic activity (stages of professional career, domestic position, interests, and others like that), acts, psychological descriptions, style of conduct of business, relations with employees. Researches conducted by a company Burson-Marstellers in Europe and United states showed that reputation of main guidance was 45 % of general corporate image [7, p.28].

The business-image is part of general image, which is the aggregate of public presentations about organization as a subject of entrepreneurial activity. Public and expert estimations are formed on the basis of finance-economical performance of enterprise and reports indicators in MASS-MEDIA.

The social image is a picture of wide public about social aims and role of enterprise in economic, social and cultural life of country. Today the aspect of social responsibility of company acquires all greater weight, especially in those industries which do not have a positive social image a priori (for example, production of swizzles or tobacco wares, enterprise of processing industries, a production of which is harmful for an environment and others). Marketings measures, such as sponson, patronage of art, support of public motions, participation, in the decision of problems of ecology and health protection, directed on the increase of social role of company and neutralization of the negative impression, which makes sphere of its functioning on public.

The visual image is an estimation of original appearance of enterprise, his interior and exterior, trading and demonstration floors, external appearance of personnel, and also brandname symbolism and other elements of brandname style. A visual image in fact personifies the first impression of consumers and business-partners.

The internal image is an attitude, foremost to the personnel, to the corporate culture and socially psychological climate of collective. A positive internal image is the certificate of that employees count this company physically and emotionally comfortable place of work, which is up to their cultural and psychological ideals and has the same moral and ethical values.

Similar classification of image components in the process of estimation allows to discover, as each of them influences on the general image of organization. However it should be remembered that an image is formed, foremost, in consciousness of people and that is why we are interested not by an object that is a transmitter of certain descriptions, but a subject opinions of which personify an image. Therefore at the terms of similar analysis of structure of image it is necessary to probe the relationship of every group of subjects of economic relations with organization or select the group of stakeholders for each component of image, for which this component is major at image forming. Thus, if the second variant is elected, the certain degree of authenticity of results of subsequent estimation is lost, in fact every component can be identically important both for a personnel and for consumers, business-partners and other interested persons.

Proceed from these very arguments, we consider that a construction of such structure of image is expedient, the elements of which will be subjects perceptions, which give an estimation to a company and its activity. This structure of corporate image was offered by W. D. Shkardun and T. M. Akhtyamov [10].

The general structure of image can be divided on external and internal. The internal contains those indexes which are important above all things for the personnel of enterprise, while the external deals with the estimations of consumers, business-environment, government bodies and society.

Image of enterprise for consumers is formed by the people's idea about the unique descriptions, which, to their minds, are inherent to the products of enterprise: design, quality, popularity of trade mark, service and discount system. Important in forming of image for consumers are a price policy of enterprise, knowledge and understanding of the declared mission and strategy, and also brandname style of company.

The business-image of enterprise is a idea of it as of subject of entrepreneurial activity, formed in consciousness of partners, shareholders, investors. Ethics of conduct of business, reliability, loyalty of company in relation to partners, informative openness, and also indexes of business activity, come forward as the basic determinants of business-image.

The social image of enterprise is made by public judgements about social aims and the role of enterprise in economic, social and cultural life of society. A social image is formed by informing society about the social aspects of activity of enterprise.

The image of enterprise for state structures is formed on the basis of minds of representatives of regional administration, executive and legislative power to the basic aspects of enterprise activity. For state structures as a special purpose image orientators are meaningfulness of products of company for providing of consumer necessities and economic development of region, degree of participation of enterprise in the regional social programs, observance of local and national laws, norms and rules of running a business, given working places for the habitants of district, openness of enterprise for informal contacts.

An internal image of enterprise is an idea of personnel about the enterprise. Thus a personnel is examined not only as a factor of competitiveness of company but also as an important information source for external audience. The basic determinants of internal image are a culture of enterprise (system of selection and studies of personnel, relations of leaders and inferiors, system and criteria of estimation of work of personnel, facilities of motivation, social privileges, brandname style of company) and socially psychological climate (the emotional state of collective, individual mood and estimation of life condition and work of personality in collective).

In this chart the internal image of organization (that attitude of personnel toward it and potential employees) occupies the last place. But the most part of researchers, in particular T. Ambler and W. Raylens disagree with such hierarchy of constituents of image. According to W. Raylens, the workers are the best starting point for the construction of proof emotional connections [7, p.28]. To our opinion, it follows to select two aspects of personnel influence on the combined image of company.

First of all, attitude of employees toward a company has a substantial influence on forming of resulting corporate image at the market of labour. Attitude of guidance toward present workers, work conditions, financial and moral encouragements determine the level of prestige of company for potential employees. As the last usually do not have an opened previous access to similar information, their estimations will be founded, above all things, on the basis of ideas and impressions of already existent workers. Balance of ideas, at least, for firms from the sphere of

services, finds out cause-effect connection between the image of employer and business efficiency [11].

Second of all, considerable part of companies, especially those, which work in trade and sphere of services, examine a personnel as the first buyers. For them connection between satisfaction of workers and consumers is banal. If the first understand and support marketing purposes of firm, if for them is formed its positive appearance, they will care of external consumers with a maximal return. Susan Khogan names employees the ambassadors of image, which present a company to clients exactly in such appearance, which they perceive it [12].

Researches, conducted by MORI (Market and Opinion Research Institute) and MCA (The Management Consultancies Association) in Britain, showed that in the list of reasons which the repeated purchases depend on, co-operating with a personnel took the third place after a price and quality [5, c. 177].

Today understanding of importance of internal constituent of image goes out far outside the sphere of services and trade. General Director of General Electric Jack Welsh marks that people are a heart and soul of company. They exactly, according to his opinion, are the primary factors of forming of reputation [7, p.29].

Therefore image which will be formed in consciousness of personnel no less important for appearance of company for consumers. Monitoring, estimation and correction must be preceded the analysis of external image. Exactly from these reasons main and most difficult priority of company activity of Pepsi in 80th the previous century consisted in fixing of reputation of marvellous job after the company [13, p. 359]. At the same time decision about the internal marketing should be accepted on the basis of degree of influence of personnel positions and its conduct on efficiency of work of company.

We should pay attention to that the reflection of certain descriptions of company image needs to be estimated at once in consciousness of a few interested persons. For example, knowledge of the mission and strategy declared by enterprise identically strongly influences on the eventual image of corporation as in the list of consumers, so personnel, business-partners, public organs and society. Such importance of mission is predefined that the self clear understanding of own tasks and aims of activity of company guidance at the present market, and also possibility of report of these aims to the interested persons select company among the great number of competitors. Moreover consumers, a personnel and business-partners, agreeing to the collaboration, consent to divide the declared mission and guidance values, and consequently, loyalty of these groups of subjects in future will be based not only on price advantages or high wage level, but on those values which are important for a company.

Second, the most widespread description of company activity which has a considerable influence on forming of positive image is its informative openness.

Forming the image of organization in the imagination, a man tries to attain internal harmony. The theory of cognitive dissonance asserts that presentation, feeling, ideas, which enter into contradiction with other presentations, feelings and ideas of individual, result the violation of internal harmony of personality. Investigation is a situation of psychological discomfort. A requirement in achievement of internal harmony, returning to the state of the lost equilibrium induces a man to fill with maintenance

an element which failing independently, that not always can go to the benefit an enterprise. So in the future, inculcating new information, it will be to overcome the barrier of the already existent aim. Risks, related to the informative blanks in the structure of image become more dangerous in the epoch of informative society, when information about the company activity is accessible for all of the interested parties more than ever. Their perception is formed on the basis of reports in mass medias which offer the all greater range of business- publication. Thus these reports not always are reliable and objective, very and often contain rumours only about this or that event. As rumours are information, that can not be confirmed by anyone, but also not refuted, they come into a notice until then, while there will not be a reaction from those exactly, who is touched by these rumours. Since it will take a place, rumours grow into «yesterday's news» and agiotage round them calms down. And vice versa, the bigger informative vacuum is and the longer rumours circulate in him, the more intensive this circulation will be and the greater harm will be caused by it to the image of company. The negative consequences of existence of rumours can affect both image of company in the eyes of consumers and personnel and other subjects. Thus, distribution of rumours at the financial market results decline of price of equities and falling of business-image of enterprise. As investigation of appearance of unconfirmed information about the defect of product there can be perceptible reduction of volumes of sale, and rumours about reduction of working places reduce motivation of workers and image of company at this group of subjects. With similar problems clashed the most known firms – Coca-Cola through poisoning with drinks in a few European countries, AOL Time Warner during confluence of two companies, Parmalat after distribution of information about possibility of company bankruptcy.

Consequently, in the conditions of informative society when the audience of company, including eventual consumer, expect the extended access to information about an enterprise, its commodities and services, results of financial activity and social person, trying to fill an informative vacuum, it is very important for every element of structure of image to be informatively filled by organization.

The authors of the structure of image described earlier select only four groups of subjects from the general audience of company. A consulting company Inside Story is in a collaboration with the academician G. Dauling offered more detailed chart of image (actually its long-term constituent – reputation) on the basis of subjects of perception. Did this chart got the name “360° reputations” [14].

On the modern stage the Ukrainian companies can be divided into two unequal groups. Those companies which corporate keeping and image is already formed, make less part so far. The basic task of marketings, PR and HR- departments of such companies consists in support and correction of the first impression and reputation of enterprise. Domestic companies which has already succeeded in getting a proof positive image from stakeholders indisputably have considerable competitive edges on the more numeral group of organizations for which forming of image until now remains the matter of the future.

Despite that the value of imagemaking policy in Ukraine is still underestimated, for the that group of companies, which however work above the complex forming of image, its estimation and correction is possible to select the row of general lines:

- expansion of role and volumes of the indirect advertising and PR;

- transferring of accents of forming of image from an consumer market to the market of labour;
- growth of informative openness of companies for all of subjects of forming an image.

Sponsor programs, grants, founded by the company, patron of art activity have a long-term strategic value and are useful foremost as an attractive image of company which is formed for an ordinary consumer and before public's eyes. As it was said, exactly the indirect advertising and activity of department of public relations are the basic elements of company influence on forming a long-term components of image - reputations. Most actively it is used by those companies, which activity carries antisocial character a priori – production of alcoholic spirits, tobacco industry, processing enterprises that are harmful for an environment.

Today sponson is one of the most widespread facilities of forming of image among the successful companies. As a result of research of potential for development a social appearance of company that was carried out by Center of innovations and development in 1999, it appeared that: 28 % polled companies consider sponson and corporate support the quite good advertising of enterprise; 24 % companies perceive indirect advertising and PR as a good mean of improvement of the image.

The first Ukrainian company that actively began to use sponsor actions for forming loyalty of consumers and demonstration of own social responsibility and personal interest in cultural growth of nation was a company Nemiroff. The number of such enterprises grows. Thus, for example, "Vinnicyam'yaso" conducts a lot of long-term eleemosynary actions: provides medicines hospitals, organizes eleemosynary dinners for veterans and etc. A pharmaceutical firm "Falbi" is known by such eleemosynary actions, as guardianship of Novograd-Volinskyj children's home, transmission of medicines in Fund "Ukraine – for children". "Obolon" and "Pravex-Bank" finance eleemosynary dining-rooms, a firm "Orifley" supports development of medical researches, related to treatment of cancer of suckling gland. The active participants of sponsor actions in a sporting sphere, organizations of musical concerts are vodka companies. The operators of mobile communication MTC and Kyivstar help the pupils of children's homes and other socially unscreened layers of population. During 2006 the company "Kyivstar" took part in 7 eleemosynary actions within the limits of the program of company "Kyivstar – for people, for a country!". In December 2005 company TNK-BP Ukraine signed an agreement about 4-years partnership with USAID, within the limits of which is carried out financing of project "Health of mother and child" with a general budget 7,2 million dollars of the USA. Particle of TNK-BP Ukraine makes 1,2 million dollars. Analogical project named "Healthy maternity" is supported by a company MTC.

Lately, the Ukrainian corporations try to use an internetresource for informing of public about their social responsibility more actively. Today considerable part of large companies has the proper section of site, which informs about the conducted eleemosynary and sponsor actions, and also vision of the role a company, in life of society. It allows to provide more influence of charity on producing a positive image of company at wider circle of persons. A rather successful innovation of mobile operator MTC is placing request on the receipt of sponsor or eleemosynary help on the site of electronic form. So a company aims to rotin own nonincentive and possibility of every Ukrainian to get a help from MTC.

The thematic analysis of eleemosynary and sponsor actions allowed to select such most widespread spheres: support of national-cultural actions and projects; sporting athletic motion; socio-economic development; a help in the decision of social problems.

It should be mentioned that in actions, supported by corporate sponsors, quite often take part and state structures, organs of executive power. For example, often Ministry of culture and arts comes as co-organizer of cultural eleemosynary actions; organizer of sport eleemosynary action "Race under the chestnuts" is Management in matters of physical education and sport of Kiev city state administration; The ministry of information takes part in organization of the Allukrainian days of press and book. Such collaboration of state structures, business companies and public organizations, is a certificate of effective intersectoral collaboration.

In their image-making policy Ukrainian companies begin to displace accents from an consumer market to the market of labour. Understanding double importance of company estimation of personnel (firstly, as a basic source of knowledges for potential employees, secondly, as a bridge between a company and eventual consumers), enterprises become more opened for the employees. Wide distribution is acquired by more loyal method of management, delegation of plenary powers, on lower levels, work in commands. A collaboration begin not with the reports of official duties, but with a mission and values. Organization of regular seminars for the increase of level of qualification of personnel comes forward as the important element of company activity, giving to employees the wide possibilities, for quarry growth. For the increase of loyalty level of employees internal PR-actions are conducted. For example, in 2006 a company "Kyivstar" developed and realized a project the "Best from the best", with the purpose of providing psychological comfort for personnel and feeling of meaningfulness for an own firm. Within the limits of project the 30 best employees were defined, were award a prize and determined by special diplomas. On an internal site "Kyivstar" a company placed interviews with winners, in which they were divided ideas about a company and their role in it. At the same time, considerable part of enterprises actively participates in demonstration of own advantages at the market of labour, organizing "Days of Career", inculcating the programs of internship for students. The popular has become supporting students of profile univercities with nominal grants. For support of positive image of organization is important a permanent "visual presence" at the market of labour, reminding to a special purpose audiences, that a company exists, and as an employer – has substantial advantages over competitors. Forms of such presence can be most various: press-releases, to the publication in facilities of mass information, participating in exhibitions and seminars, presentation of companies in higher educational establishments. Multinational corporations which work at the Ukrainian market place information about itself as an employer on the electronic sites. Concerning domestic companies, only their insignificant part on their sites next to information for consumers places and information for workers, for example sites "BudMaks" and "Velika Kishenya", contain information about present vacancies and so on. More and more enterprises demonstrate its own advantages at the market of labour, taking part in "Days of Career", inculcating the programs of internship for students (MTC, P&G);

Facts, mentioned earlier, testify that the Ukrainian companies begin to trust in virtue of image. A next step must be liquidation of dissonance between the first impression and reputation in order to change a corporate image from an abstract category into an : intangible asset which

alongside with other assets will provide an investment attractiveness and participate actively in the increase of companies potential .

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CONSUMER'S BEHAVIOUR AND LOCAL PRODUCTS: A PERCEPTION MODEL

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The main aim of this research is to study the perception of consumers regarding regional products from Calabria and the role of Magna Græcia culture in their buying behaviour. In fact, many products and artefacts reflect the finds in the region from the ancient Greek era which ran from the VIII Century B.C. to the 1st Century A.D.. Despite this considerable patrimony Calabria has still not fully exploited its potential.

The basic assumption underlying this research is that such processes are characterised by certain variables inextricably linked to the territory. The goal, therefore, is to construct a model to help us identify the main relevant factors. Currently, there remains a gap in the literature about the degree of influence played by the territorial image and other potentially influential factors have not yet been analyzed thoroughly.

The aim of this research, therefore, is to analyze the perception of local products from the Calabria region as heritage of Magna Græcia period in order to identify a new model which can deliver concrete results for the area as regards marketing strategies and territorial communication, thereby influencing in a positive way regional development.

To achieve this task, the research conducted has been developed by using two different approaches: the first qualitative, the second quantitative. In particular, the qualitative method (in depth-interviews with marketing experts) has been used initially to find important considerations which constituted the base on which the quantitative research (based on the questionnaires with consumers) can then build upon.

Keywords: consumer' behaviour, local products, consumer's perception, Magna Græcia, regional image.

INTRODUCTION

The main aim of this research is to study the perception of consumers regarding regional products from Calabria and the role of Magna Græcia culture in their buying behaviour.

The basic assumption underlying this research is that such processes are characterised by certain variables inextricably linked to the territory. The goal, therefore, is to construct a model to help us identify the main relevant factors. A model which describes this process could be used to define marketing strategies geared to enhancing the image of Calabria, by promoting its local resources. Many researches (Tellstrom et al., 2005), in fact, suggests that the use of traditional culture can help revitalise a region and create a bond between the consumer and a particular area.

We have chosen to analyse Calabria because it is a region that possesses an enormous inheritance from the point of view of art, culture, nature, history and archaeology which is often not fully exploited or fully known. In particular, the resources of major interest and importance are those dating from the period of Greek colonisation which has come to be known as Magna Graecia (Bertacchini, 2008). Many products and artefacts recall ancient Greek traditions and

often reflect the finds in the region from the ancient Greek era which ran from the VIII Century B.C. to the 1st Century A.D.. We can easily find close links between archaeology and numerous Calabrian local products, both food and drink and otherwise.

Nevertheless, Calabria has a very strong arts and crafts tradition involved in the production of local food specialties (such as salami and other pork products, various kinds of cheese, liqueurs made from locally grown plants and herbs) as well as gold jewelry and musical instruments, while there is a strong growth in the production of cultural goods and services led by local museums and the universities.

Only one enterprise on nine exports outside Calabria (ibid., 2005) and very few businesses invest in marketing or communication strategies. This demonstrates the importance of bringing to the fore such a valuable resource as the region's arts and crafts industries.

Despite this considerable patrimony Calabria has still not fully exploited its potential as a tourist destination on account of the low profile outside the region of what the region has to offer- in terms of products and culture - and the lack of promotion and attention devoted to cultural extras such as museums and archaeological parks (Confindustria Calabria, 2005; Servidio et al., 2008; Pantano 2008a,b).

In this scenario, it is very useful for Calabria the developing of new strategies to promote its local products, based on consumer perception of these ones.

Models of consumer's perception currently available in the literature refer to a process of perception for products in general in which the main factors that influence the consumer are not linked to a particular place, but rather to the consumer's own characteristics (in the sense of values and beliefs, opinions, lifestyle and so on) or to the product itself (physical characteristics, brand, price etc.) and the place where it is sold; certain authors claim that factors connected to the internal characteristics of the consumer are the most important and these characteristics are not under the control of retailers (Bäckström & Johansson, 2006).

Other studies (Dimara & Skuras, 2003; Skuras & Dimara, 2004; Mattaicci & Vignali, 2004) recognize the value the consumer gives to products associated with certain places or regions, although they do not specify which territorial factors lead the consumer to purchase a particular item.

In this work it is considered that factors such as the image and culture of a region have the greatest influence in the choice of purchasing local products.

If local products are the expression of a place, whose characteristics they embody, then it is clear that the ancient traditions of a culture like that of Magna Græcia can strongly influence the perception of a product.

The development of a model of perception that takes into account the cultural influences can have significant repercussions on the development of territorial marketing in the fields of business, tourism and society in general and spread this awareness on a national and international level.

The studies conducted up till now have shown that cultural aspects (image and territorial identity) influence the perception of the consumer, but these studies have not analyzed the

extent to which these contribute to the creation of a model of perception of local products; in other words there remains a gap in the literature. Furthermore, the degree of influence played by the territorial image and other potentially influential factors have not yet been analyzed thoroughly.

These can be built up on the basis of the development of a model of the perception of consumers regarding local products from the Calabria region stemming from Magna Græcia.

The aim of this research, therefore, is to analyze the perception of local products from the Calabria region as heritage of Magna Græcia period in order to identify a new model which can deliver concrete results for the area as regards marketing strategies and territorial communication, thereby influencing in a positive way regional development. The research undertaken is of an inter-disciplinary nature being comprised of elements linked to both marketing and psychology, which combine to produce revealing insights.

RESEARCH METHODOLOGY

The research conducted has been developed by using two different approaches: the first qualitative, the second quantitative.

The qualitative part is oriented to the analysis of interviews with the major producers in Calabria of goods connected with Magna Græcia. The quantitative part, on the other hand, has been conducted through the administration of a questionnaire.

The decision was made to combine the two approaches because the qualitative approach can provide useful guidelines for the subsequent quantitative phase. In fact, several authors suggest that qualitative methods should be used initially for the analysis, in order to find important considerations which will constitute the base on which the quantitative research can then build upon (Cahill, 1996; Mangan, 2004).

According to Vinten (1994), in fact, qualitative research allows the investigator to bring out the point of view of the interviewee and helps the development of hypotheses (May, 1996). It also allows the investigator to study the issue in question in depth (Burke & Onwuegbuzie, 2004); moreover, the successive phase of quantitative research can then go beyond the limitations linked to quantitative forecasts and can proceed to the testing of hypotheses and theories. In fact, the quantitative research is developed through in-depth interviews that, by and large, follow the most common method utilized for data collection in qualitative research (Dyer 2006; Ritchie & Lewis, 2003). In this phase, unexpected variables can easily come to light (Muijis, 2004). The awareness of the major producers in Calabria on consumer's purchasing behaviour can, in fact, help us to find new variables and improve the initial perception model, enriching its content, before the verification stage, through quantitative research.

On the basis of information obtained from the qualitative research a questionnaire is drawn up to use with consumers. This is one of the most effective instruments to acquire clear information on a limited number of subjects (Dyer, 2006), whose main characteristic is to collect numeric data, that can be subjected to statistical analysis (Walker, 2005; Muijis, 2004).

We have chosen to carry out a qualitative investigation, through the analysis of a case-study held to be particularly significant in the patrimony of Calabrian producers of traditional goods

with explicit links to the culture of Magna Graecia, and in-depth interviews with some producers, who are believed to possess information on consumer's behaviour, which are useful to our research because of their experience in the sector, their market share, and the strategies they utilize.

The stage regarding the interviews with the producers lasted just over a month and was completed in November 2008. The final stage, consumer research, lasted from December 2008 to the beginning of March 2009.

Qualitative research generates important results for the individuation of a preliminary model of perception of local Calabrian products, which constitutes the basis for the subsequent quantitative research.

It was considered sufficient to interview ten producers as those involved in the research are the major producers of Calabrian specialties traceable to the Magna Graecia heritage, furthermore they have good experience and the firms' dimension are such that they can provide useful results for the research. The firms excluded from research were either too small or lacking in an adequate firm culture in order to possess significant information.

QUALITATIVE RESULTS

The key of the success of one of the most important Calabrian goldsmith is the relationship with the territory (Pantano, 2008). In fact, the goldsmith underlines in each product the relationship with Calabria, this is a distinctive characteristics of his products, likewise culture, art and traditions own of the region (ibid., 2008), which is the reference of the firm.

This is the basic step for the following interviews with marketing experts. In particular ten marketing experts has been interviewed (CEO and Sale Directors).

After having collected the information from the interviews and having identified the most useful statements for the research, we proceeded to the individuation of some codes, each of which corresponds to an influencing factor. With the support of MaxQda software we analyzed the frequency of such words in the text in order to carry out a more in-depth analysis of the interviews with the aim of identifying the most important influencing factors according to the producers of local specialties in Calabria (Figure 1): uniqueness (frequency of code 1), memory (frequency 2), emotional experience (2), brand (2), distribution (3), label (4), tradition (4), point of sale (4), link with territory (4), local (4), price (7), quality (8), territorial image (9), packaging (15). In particular, each code corresponds to a color.

	ID del codice	Codice	Tutti i segmenti codificati
■	12	unicità	1
■	10	ricordo	2
■	9	esperienza emotiva	2
■	6	marca	2
■	14	distribuzione	3
■	5	etichetta	4
■	8	tradizione	4
■	3	punto vendita	4
■	13	legame territorio	4
■	1	tipico	4
■	2	prezzo	7
■	11	qualità	8
■	7	immagine	9
■	4	confezione	15

Figure 1: Frequency of codes (factors) in the interviews with the producers.

From the analysis of the interviews it emerged that a local product is an object bought as a memento of the place, independently of the emotional experience connected to the place.

Furthermore, the label was of great importance for producers, as it is in their view the first thing the consumer notices and it encapsulates all the characteristics of the product, its history, its tradition and its link with the territory (many of them in fact utilize some Grecian symbols to recall the link with the ancient culture of Magna Græcia).

We went on to eliminate two factors, following evidence from the interviewees who agreed in saying such factors did not influence their clients' perception: the quality of the product and the emotional experience linked to the location of the product itself.

The quality of the product in the case of local products does not influence consumers' perception as (according to the producers) consumers already consider the local product as one of good quality, as it is made with good quality raw materials and traditional and handmade manufacturing processes which give the product a higher value.

In the empirical model initially presented we thought the consumer's emotional experience in the location would have an influence on the perception of local products linked to that same territory, as it was thought that if consumers had had an enjoyable experience in the place they would have perceived the products as being very good. The producers, on the contrary, agreed on the fact that the experience does not influence the consumers nor their predisposition to buying, as the products are bought mainly during a holiday regardless of the positive or negative emotions experienced therein. The majority buy the product in order to take back an object which will remind them of the place, or as a gift to their loved ones as a symbol of the place visited.

We can infer the ways in which we can cluster into one single code *emotional experience and memories*, as they have very similar relations with the other codes. This is justified by the fact that the emotional experience lived in a place influences one's memories of the place. If tourists have a positive experience in a certain place they will take away with them a positive memory,

and vice versa if they have a negative experience they will take away with them a negative memory.

It is further possible to cluster into one single code *point of sale* and *brand* as these also have similar relations. This is justified by the fact that local products are usually niche products and are thus not very well known, their brand is usually the same as the name of the shop in which they are sold. This name recalls the link with the territory or the name of the owner. Therefore, the brand is identified with the name of the shop and vice versa.

QUANTITATIVE RESULTS

In this section we start from the results obtained from the qualitative research for the drafting of a survey of consumers who were interviewed, between December 2008 and February 2009.

To calculate the most suitable sample size to obtain an error of 5% we used the formula below:

$$\frac{N}{1+d^2*(N-1)} = n$$

Where

n= sample size

N= population size

D= probability of error

In total the people interviewed were 536, so the expected probability of error is even inferior. In particular, deriving from the formula the exact value of the probability of error corresponding to 536 interviewees, we obtain a value of 4.32% for the probability of error of the sample examined.

Structure of the questionnaire

The questionnaire was structured into 64 questions and articulated around 3 main sections:

fundamental components (interviewee's profile, knowledge of the certified guarantees for local European products, point of sale, knowledge of local products, sources of information of such knowledge);

potentially influential factors (convenience of the product, product packaging, cultural factors linked to the place of production, place of production);

consumer's behaviour concerning such products (frequency of purchase, cost of each purchase).

In the model to be tested we assume that there might be some correlation between culture-related factors and other factors which influence consumer's perception, this hypothesis is tested in the quantitative stage. In particular, the initial model relative to consumer's perception which

we want to test and eventually improve by using the quantitative research with consumers is the following (Figure 2):

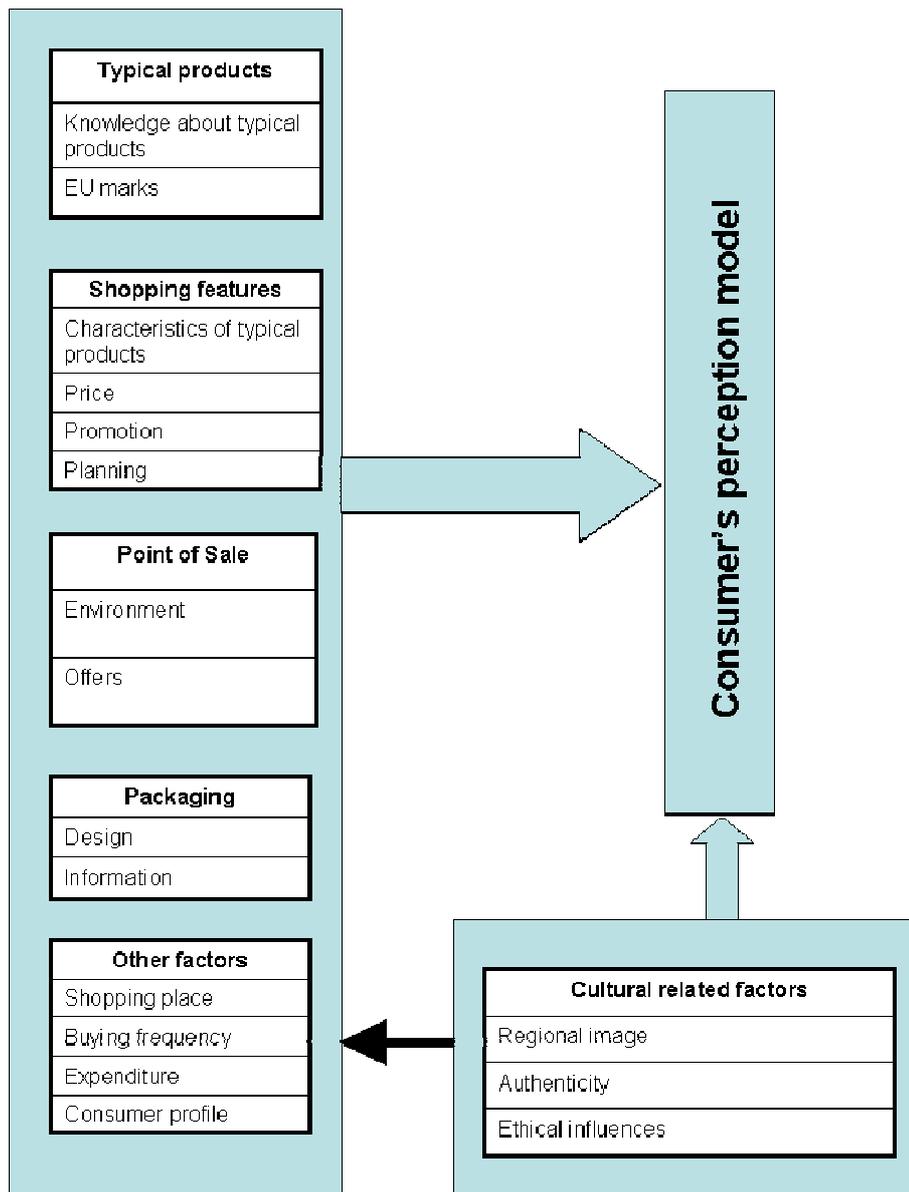


Figure 2: Initial model of consumer's perception of local products.

Analysis of results

With the support of SPSS software we analyzed the quantitative data.

The first step in the analysis of the results involves evaluating the reliability of the questionnaire.

Initially we have carried out a factor analysis, which is conducted to study, summarize, and simplify the relations in a group of variables (Barbaranelli, 2006). In particular we evaluate the suitability of the variables, the factoriability of the correlation matrix (matrix which contains the correlations between the observed variables); furthermore, we choose the method of extraction of the factors, the number of factors, the method of rotation of the factors; and we interpret and validate the solution.

Through factor analysis we can carry out Bartlett's sphericity test.

This indicates whether the test is significant, i.e. if the sample is sufficiently wide and it is thus possible to carry out factor analysis, if this is not the case the correlations between variables are too low and factor analysis cannot be made.

Further, it is possible to carry out a Kaiser-Meyer-Olkin (KMO) sample adequacy test which provides an index for comparing the dimension of the observed correlations with respect to the partial correlations. In particular, if this index has a value in excess of 0.90, the results are considered to be excellent; if its value is between 0.70 and 0.80 the results are acceptable; if the value is between 0.60 and 0.70 the results are mediocre; if the final value is inferior to 0.60 the results are scarce or not acceptable and thus it is not advisable to proceed to a factor analysis (Field, 2005). Principal components factor analysis was executed with Varimax rotation, as this method allows for a better separation of the various factors (Barbaranelli, 2006); furthermore, factors leading less than 0.40 are omitted to improve the clarity of the obtained results.

The results has been reported in the following table (Table 1).

All KMO values are more than the recommended value of 0.6.

<i>Section</i>	<i>Item</i>	<i>KMO</i>
<i>Local products and quality certifications</i>	11	0,784
<i>Product characteristics and purchasing occasions</i>	12	0,654
<i>Point of sale</i>	7	0,624
<i>Packaging</i>	6	0,621
<i>Regional influence</i>	8	0,707

Table 1: Results item and KMO values.

Following this stage we considered important an evaluation of the reliability of the scale used. Reliability "means that the scale should consistently reflect the construct it is measuring" (Field,

2005). To evaluate the reliability of the submitted questionnaire, it is necessary to analyse Cronbach's alpha. This is a coefficient which evaluates the reliability of psychological and educational measurements (Cronbach & Shavelson, 2004). It is "a kind of correlation with a possible range from 0 to 1.00" (ibid., 2004). If its value "is near 0 then the quantified answers are not reliable at all, and if it is close to 1 the answers are very reliable" (Leontitsis & Pagge, 2007).

Results are presented in Table 2:

<i>Item total correlation</i>	<i>Alfa di Cronbach</i>	<i>item</i>
<i>Local products and certification marks</i>	,626	11
<i>Product characteristics and occasion of purchase</i>	,608	12
<i>Point of sale</i>	,633	7
<i>Packaging</i>	,668	6
<i>Regional influence</i>	,637	8

Table 2: Results item and scale analysis.

"The values 0,7 or 0,75 are often used as cutoff value of Cronbach's alpha and thus for the reliability of the test" (Christmann & Aelst, 2006), but in some cases (depending on the number of items involved) even lower values are considered acceptable (Duhachek et al., 2005), particularly if they are in excess of 0,6. As we can see in the table above all items have a value in excess of 0,6 and in some cases very near 0,7.

Some chi-square tests have been carried out in order to evaluate the relationship between two variables. The significance value small enough (conventionally less than .05) then the hypothesis that the variables is rejected because they are in some way related (Field, 2005; Muijs, 2004). In fact, chi-square test can "guide model modifications or adding constraints even when the less constrained model is highly significant" (Yuan & Bentler, 2004).

Only the most relevant chi-square tests are reported in detail. For variable age group a chi-square value is 33,52, df is 5 and p (asymptotic significance)= 0.004. That means that, using a the 0.05 cut-off point, the difference is statistically significance (Muijs, 2004).

The test showed that statistically there is a significant relationship of the variable age between the sample population and the population. For variable provincial group a chi-square value is 42,97, df is 18 and p (asymptotic significance)= 0.001. That means that, using a the 0.05 cut-off point, the difference is statistically significance (Muijs, 2004). The test showed that statistically there is a significant relationship of the variable provincial between the sample population and the total population.

The first significant data that emerged from the descriptive analysis was related to the frequency of purchase

The majority of the consumers interviewed (536) said that they buy Calabrian local products linked to the tradition of Magna Græcia once or twice a month. This value finds confirmation in the fact that the expense incurred is relatively low and that the majority of these products is purchased in supermarkets (although only a small amount of such products is distributed through type of outlet) and it shows how the diffusion of the products under examination has so far only had a slight impact on the habits of Calabrian consumers.

Relatively to the monthly expense, the majority of the people declared they spend less than 50 Euros, particularly in the lower age group of the population (under 35s). This also reflects the diverse financial capabilities and the different attention toward local products which lead the older band of the population to spend, as was predictable, sums even in excess of 100 Euros. In fact, the average monthly expenditure per age group is higher in the older age groups. These results imply the fact that often such people's shopping involves the support of the whole family nucleus, which in the younger age groups may only be formed by one person.

The data is further confirmed by the average monthly expenditure in relation with the level of education: the greater the level of education, the greater the average expenditure. It is assumed, in fact, that a higher degree of education corresponds to higher financial capabilities and thus a tendency to spend more.

Another interesting datum is connected to the place in which consumers buy such products. What emerges is the preference on the part of the consumers to buy such products in supermarkets. In fact, only a very small percentage of the interviewees maintain they buy them on the internet (14% circa), whereas the rest maintain they never buy them. This value finds confirmation in the fact that only a few Calabrian producers have a website, and among these the majority uses the site only as a virtual display, in contrast with what happens in other Italian regions or in other European countries, such as Germany, in which the internet largely supports the sales which, in fact, are made through the use of various channels (Schröder & Zaharia, 2008).

Furthermore, purchases are rarely, if ever, made in the place of production, which in some cases is hard to reach or not adequately taken care of. Most of the purchases of local products deriving from Magna Græcia are made in supermarkets (about 55% of the interviewees buys often or very often in supermarkets), where only a small quantity of the great variety of such products is available. As regards the occasion for purchase, most of the interviewees do not plan on buying a local product (about 80%), in particular the prevalence of the interviewees buy such products whilst on holiday (circa 80%) or as a gift (circa 60%) (Figure 48).

Furthermore, around half of the interviewees maintain that a particular price can lead to a purchase, even when not previously decided.

Among the promotional activities preferred by the consumers' interviewed regarding the purchase of these products, we certainly see in-store tasting.

Almost 90% answered that this is one of the best promotional activities to make the product known and to induce to a purchase. A great number of interviewees (75%) has said that reductions in price or particular discounts can incentivise a purchase confirming the data previously collected on the influences of a lower price than usual. Furthermore, flyers distributed in the streets are very important: through these consumers can discover a particular

product or the place in which to buy it, which is generally not well known because it addresses a niche public. Finally, regarding the shop sign, only half of the interviewees said they were impressed by it enough to be driven to enter a shop. As regards the packaging of the product, just over half said it should look attractive, whilst almost 80% declared that the package should be manageable and easy to open. This data can be justified by the fact that the products under exam are generally bought during a holiday or as a gift, therefore it is particularly important that the packaging can be transported easily.

A high percentage of the interviewees (about 80%) has said that the packaging should also be see-through or have a transparent part through which one can see its contents.

This characteristic allows consumers to observe what they buy, also leaving them with a greater sense of security toward such products.

Regarding the packaging, the interviewees also expressed their opinion on the information which should appear on the label. In particular, most of the interviewees require the presence of detailed information on the manufacturing place (about 97%), secondly information on the utilized materials (about 95%) and finally information on the link with the territory (about 85%).

These data are justified by growing consumer's awareness toward the products they buy, and their increasing preference for natural materials, genuine (in the case of alimentary products) and not altered in a laboratory or artificially created. For these reasons it has also become fundamental to know the place where the product has been made and the techniques used in its production. Local products generally possess these characteristics and, for this reason, they are usually considered by consumers of superior quality.

Another very important factor which emerged from the analysis is that related to the interviewees' knowledge of local products (certification marks). Over 60% know such marks and they consider them certifications of guarantee of the quality of these local products, but only half of the interviewees buy such products on a regular basis or have a particular interest in the products which have such symbols.

In fact, about 50% of the interviewees agree in affirming that products with such marks are effectively of superior quality compared to similar ones without the certifying mark.

The subsequent step is related to the regression analysis. This is a technique which allows researchers to examine the relation between one or more independent variables (IV) or between an outcome variable and a dependent variable (DV) (Barbaranelli, 2006; Field, 2004; Muijss, 2004), with the aim of:

- analyzing the effects of the independent variables on the dependent variables in function of a certain model;

- identifying a linear combination of the independent variable in order to predict in an optimal manner the value assumed by the dependent variable (Barbaranelli, 2006).

In particular, in this analysis the qualitative indications derived from the interviews with the major Calabrian producers are tested.

The use of the SPSS software allows researchers to find not only a simple correlation coefficient, but also collinearity statistics: Tolerance and Variance Inflation Factor (VIF) (Liu et al.,

2003), i.e. to what extent the factors are interlinked. "Tolerance = $1 - R^2$, where R^2 is squared multiple correlation of i th variable with other independent variables" (ibid., 2003). When its value is close to 0, the variable is almost a linear combination of the other independent variables (ibid., 2003). VIF is reciprocal of tolerance. "Variables with low tolerance tend to have large VIF, so variables with low tolerance and large VIF suggest that they have a collinearity. No variables of the initial model have high collinearity.

None of the variables in the initial model have high collinearity.

Initially, we analysed the influences of the local products (VIF= 1,495), shopping features (VIF=1,373), point of sale (retail point) (VIF 1,451), packaging (VIF=1,558) and culture related factors (VIF=1,729) on consumer's perception (Figure 3), in particular it is the latter ones that seem to have the main influence.

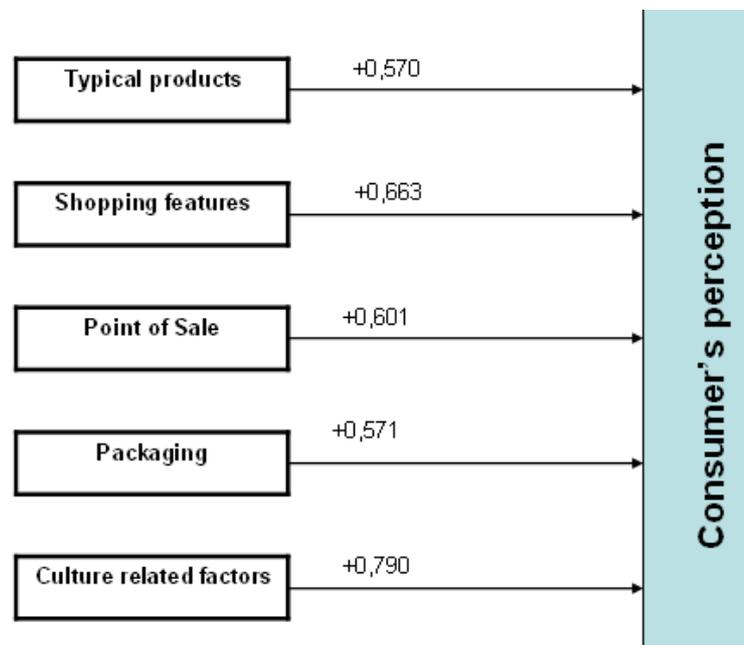


Figure 3: Multiple regression results on consumer's perception influencing factors.

Initially, we analysed the influences of the local products (VIF= 1,495), shopping features (VIF=1,373), point of sale (retail point) (VIF 1,451), packaging (VIF=1,558) and culture related factors (VIF=1,729) on consumer's perception, in particular it is the latter ones that seem to have the main influence.

For this reason, we have proceeded to a further regression analysis to see how much cultural factors influence local products, shopping features, retail point and packaging individually (Figure 54). As highlighted in Figure 4, we can see how *ethical* influences do not intervene in the perception process in a significant manner, having a very low Beta value.

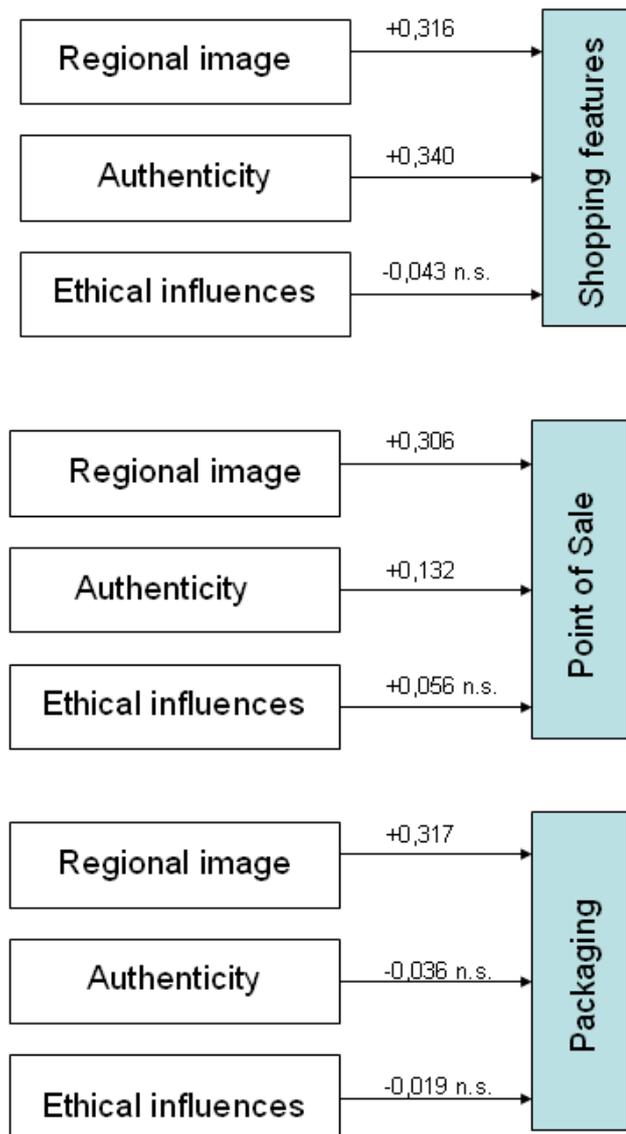


Figure 4: Multiple regression results of culture related factors on the other influencing factors.

CONSUMER'S PERCEPTION OF MAGNA GRÆCIA PRODUCTS

The next step of the research is to evaluate the index related to how the local products perception influences the buying behaviour of consumers, in particular shopping frequency and average expenditure on local products. To evaluate this we carried out a linear multiple regression. The results are shown in Figure 5.

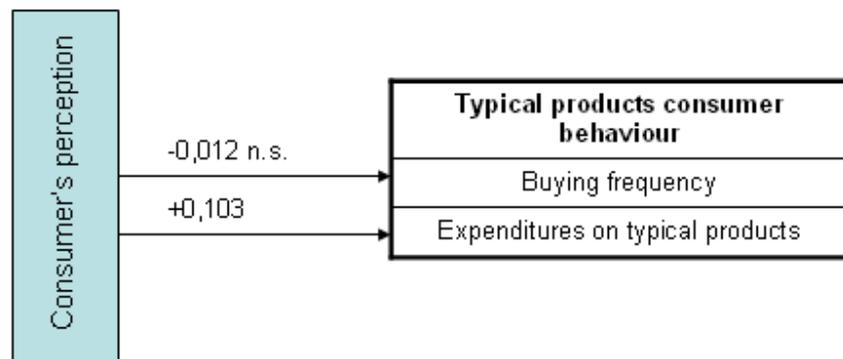


Figure 5: Multiple regression results of consumer's perception on consumer's behaviour.

In particular, it emerges from the figure that the perception does not influence the buying frequency, but only the average expenditure on local products. This result is explained by the fact that if consumers perceive the product as somehow endowed with superior quality, it is likely not that they will go out and buy them more often, but rather that when they do go out and buy the product, they will buy more of it.

After that we also analyzed other factors, to evaluate how much these may influence consumer's perception.

Among the various factors only the shopping place resulted significant, in particular the manufacturing place ($\beta=0.179$) and the specialized shops ($\beta=0.186$).

Only a minority (of the range) of Calabrian local products is sold in supermarkets, this distribution justifies the obtained values.

In Table 3 we show the ranking of the factors which influence the consumer's perception model. In particular, only those factors which directly influence consumer's perception were listed. It must also be stressed that cultural factors are the main influences and that they include Regional image, Authenticity and Ethical influences.

<i>Direct influences</i>		
<i>Rank</i>	<i>Dimensions</i>	<i>Beta</i>
1	<i>Local products</i>	0,570
2	<i>Shopping features</i>	0,663
3	<i>Point of Sale</i>	0,601
4	<i>Packaging</i>	0,571
5	<i>Culture related factors</i>	0,790
<i>Other influencing factors</i>		
1	<i>Shopping place</i>	0,365
2	<i>Education</i>	0,004 (n.s)
3	<i>City</i>	-0,044 (n.s)
<i>Consumer's behaviour of local products</i>		
1	<i>Buying frequency</i>	-0,012 (n.s)
2	<i>Expenditures on local products</i>	0,103

Table 3: Ranking of model dimensions directly influencing consumer's perception.

In Table 4 we summarize the values for the influences of cultural factors on the other components of the system, from which it is evident that the main influences are those determined principally by the Regional image. It is further possible to note that Ethical influences do not influence the other components of the model.

<i>Cultural factors influencing others of model</i>			
	<i>Regional image</i>	<i>Authenticity</i>	<i>Ethical influences</i>
<i>Local products</i>	0,163	0,125	-0,084 (n.s)
<i>Shopping features</i>	0,316	0,340	-0,043 (n.s)
<i>Point of sale</i>	0,306	0,132	0,056 (n.s)
<i>Packaging</i>	0,317	-0,036 (n.s)	-0,093 (n.s)

Table 4: Influences of cultural factors on the other model dimensions.

After the factor analysis within the item and the scale analysis, questions 6.2, 6.3 11.2, and 12.2 were eliminated.

After the regression, on the contrary, we highlighted that ethical influences do not influence shopping features, retail point and packaging. This implies that this variable will be completely eliminated from the final model.

There are no other variables which need to be removed from the final model.

Adaptation of the initial model

After a stage in which the results of the quantitative research were presented in detail, we now move on to the one related to identifying the modifications to be made to the initial model (Figure 6).

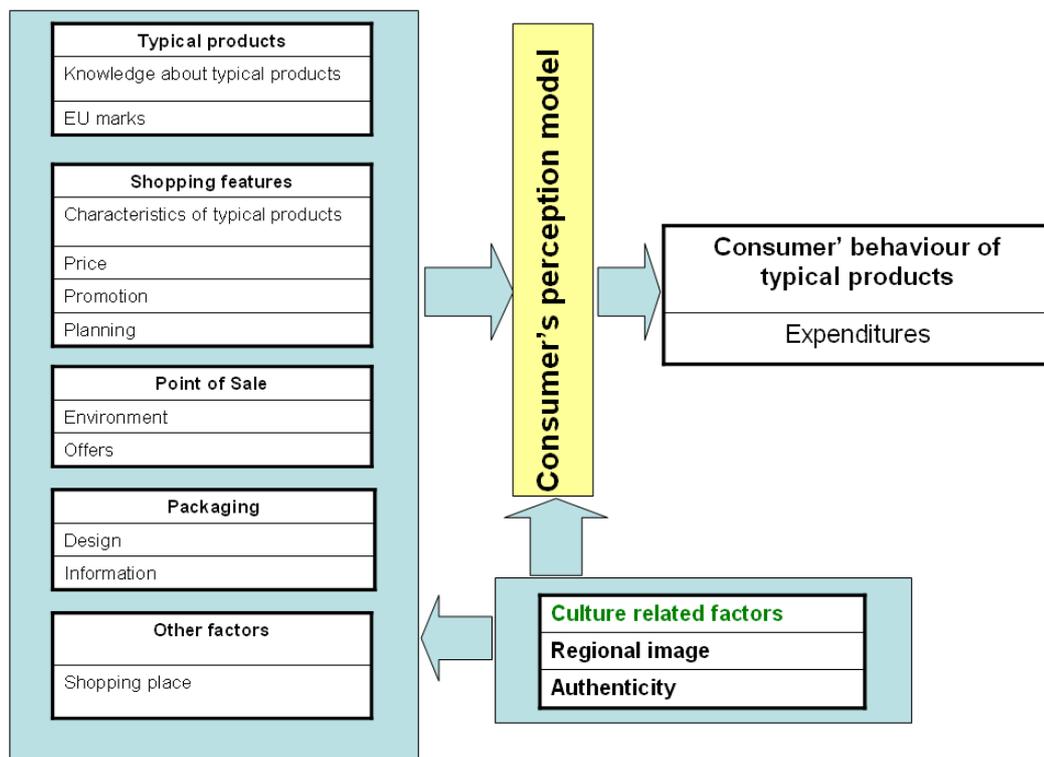


Figure 6: Adapted perception model for Calabrian local products coming from Magna Græcia.

The final model is different from the initial one most of all because of the fact that the cultural factors which influence consumer's perception are exclusively reducible to regional image and authenticity. Furthermore from the final model one can clearly see that consumer's perception influences consumer's behaviour regarding the average expenditure on traditional products. Finally the quantitative research has confirmed that culture related factors influence considerably also all the other factors which influence consumer's perception.

IMPLICATIONS FOR TERRITORIAL MARKETING

The results obtained have shown to what extent (both as territorial image and authenticity) the cultural component affects the process of product perception. Calabrian producers can use these results to define marketing and communication strategies which focus more on the link with tradition, so that the new market sector represented by consumers with an interest for local, traditional products made by artisans could be exploited. Only a part of these strategies have emphasised this connection so far, and have done so inaccurately.

Such strategies, aiming at the promotion of the Calabrian territory through the valorization of its specificity, may do well to focus on the message that local products have an ancient historical and cultural value as they originate directly from the Greek colonisations.

In the light of the results obtained, such a connection could be communicated on the wrapping, which should give more information relating to the place of production, the production techniques and traditions; it could also be shown in the retail point by developing a more traditional atmosphere and by paying greater attention to detail. Also, co-operative associations of producers could be set up to increase their impact on large-scale retailers and overcome the obstacle of high royalties.

It has also emerged from the research that over 60% of Calabrian businesses do not invest either on advertising or communication strategies as a whole. The setting up of a consortium, with the support of the Regione Calabria, could enable businesses to exploit digital communication tools and related studies to promote local resources within a global perspective.

CONCLUSIONS AND FUTURE WORKS

The aim of this research was to present a model of perception of Calabrian products from Magna Græcia starting from the assumption that the ancient culture underlying these products in some ways influences consumer's perception of them. Another objective of this work was to identify the factors that may influence the process of perception of the products in question, in order to single out possible implications for territorial marketing.

The research confirmed that a close connection exists between the two, and that the factor represented by regional image and authenticity considerably affects product perception and also influences other factors which play a part in the process of perception. Such factors include knowledge of local products, shopping features, points of sale and packaging.

Price turned out to be a minor influence in the perception of local products, while it is a key factor in the perception of brand products, where price has been shown not only to affect perception but is also a discriminating element in the purchase.

Moreover, regional image and authenticity have a direct effect on other factors, as these can underline in some ways the connection with territory, traditions and local culture.

Cultural factors also influence directly the retail point, where both the atmosphere and design can recall the territory with special images, colours and materials. Cultural elements affect the characteristics of the packaging too, which should contain all the information necessary to stress the connection with the territory, culture and traditions of the place of origin, as well as special

images, colours or shapes that recall that connection. They also affect the characteristics of the product and related marketing activities.

Finally the model shows how consumer's perception of these products manifests itself in consumer's behaviour at the moment of perception, influencing average expenditure but not the frequency of purchase. In the light of this, it is possible to affirm that consumers do not increase the frequency of purchase of these products, but rather the expenditure they dedicate to buying them. In some cases consumers prefer to purchase these products instead of similar, as consumers are prepared to justify a higher price with better quality.

The presented model could be generalized by extending the research to a larger sample of consumers with the aim of identifying possible common factors or differences.

Furthermore, it is possible to blow up the model, developing the individual determining factors further, in order to single out the details which affect product perception.

In conclusion, the model can be generalized by referring to Calabrian local products in general and after -by getting foreign tourists involved- identify a model of consumer's perception regarding "Made in Italy" products. New marketing and communication strategies related to the territory could be developed for the Calabrian region which focus on this particular message.

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PERVASIVE ENVIRONMENTS FOR PROMOTION OF TOURIST DESTINATIONS

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Purpose – The aim of this paper is to analyze how the Information and Communication Technology (ICT) and, in particular, the pervasive environments, can be more efficient tools for promoting tourism destinations. The study comes at a time when several researches are being focused on its potentialities on the tourism sector, as an important enabler of innovation and new marketing strategies, which could have implication on the developing of local economies. In particular, these tools can be used for promoting destination with a strong archaeological value.

Design/methodology/approach - We have analyzed the most used technologies in the tourism field, with emphasis on the pervasive environments. Afterwards, we analyzed the case of the archeological virtual reconstruction by using stereoscopy tools of the Greek walls located in Vibo Valentia (Southern Italy). This represents a meaningful example of a pervasive environment with the purpose of the promotion of Vibo Valentia City by exploiting its archaeological resources and the new tool of ICT.

Findings - The advances in technologies offer many interactive tools for promoting touristic destination, as well as provide interactive tools capable of improve tourists experience and, as consequence, influence their final decision-making. In particular, the pervasive environments allow tourists to live a more immersive experience, by enhancing the presentation and interpretation of the touristic assets. Furthermore, these environments can be integrated with other ICT to improve the offer of services for tourists. For instance, several current websites display three-dimensional model of objects, so that user can visualize these objects rotating them on the computer screen.

Research limitations/implications - To date, the analyzed pervasive environment has not been tested on a statistical significative sample of population. A qualitative and a quantitative research can be carried out to gain more data on consumers' response, in order to improve the current environments used to deliver this information. Afterwards, the environment will be tested with the application of 3D sound techniques in order to improve the user immersive experience providing a more realistic context.

Originality/value - In recent years, the competition among territories grow more than in the past. In this scenario, it plays a key role the development of new strategies for promoting the territorial resources to attract more tourists and gain a competitive advantage if compared to the other territories. This paper investigate how the new advances in ICT provide efficient tools to achieve this goal, and in particular how the pervasive environments can have the potential to have the major impact in the promotion of touristic destinations, which have not been fully investigated in the current literature.

Keywords Tourism destination, Tourist behaviour, Virtual Reality, ICT, Pervasive environments

INTRODUCTION

In recent years, the competition among territories grows more than in the past. The current advances in technology have developed new tools for promoting the territorial resources in

order to attract more tourists. In this scenario, the idea of digital tourism or e-tourism developed fast. It can be defined as the promotion of a touristic product (Cooper and Hall, 2007), which includes different services and activities such as websites, virtual and augmented reality, interactive environments, and so on. In fact, the tourism digital environments offer new services for consumers. In particular, it allows consumers to access to information and purchase touristic products in an easier way than in the past. To date, tourism enterprises are focusing on new approaches based on Information and Communication Technology (ICT) to increase the territorial promotion. These approaches exploit several internet tools.

In the tourism context, it is possible to exploit the ICT tools to make tourism business operations more profitable than in the past (Cooper and Hall, 2007). To date, there is still a gap in the research of the use of pervasive environments in tourism. For instance, in previous studies we have applied these technologies in other sectors like retailing (Pantano, 2009a,b) or for supporting learning process (Pantano and Tavernise, 2009).

The aim of this paper is to show how the integration of ICT and with Virtual Reality tools can be exploited for promoting tourist destinations in order to support the tourist decision-making process. In particular, these technologies allow to improve the promotion of local tourism resources and to influence the people evaluation of the touristic place (MacKay and Couldwell, 2004). From this point of view, consumer emotions play an important role in the place evaluation motivating and supporting the consumers during the purchase phase. In addition, these technologies allow to share the information about touristic places in order to assure a large diffusion of the contents, reducing the operational cost to promote it.

The paper is organized as follows: in the first section the traditional tools for promotion of tourism destination have been analyzed. The second one shows the most used ICT in the tourism field. Finally, the last one investigate how the pervasive environments can be a powerful tool for promoting tourism destination, by analyzing the case of the Greek walls in Vibo Valentia City (Southern Italy).

PROMOTION OF TOURISTIC DESTINATION

The study of destination imagery is an important aspect of the tourism research. From the cognitive point of view, each visitor may have different motivations to visit a specific destination. In this case, the image perception of the destination plays an important role because it not only supports the decisional process of the tourists but also stimulates its emotional state. In fact, planning the trip is an ongoing enjoyable and interactive social process, where fantasy and emotions play an important role and tourists are involved in continuing information search. By going this information search process, the tourist creates a "mental image" or "mental model" of what the travel experience might look like coherent with his/her need (Tapachai and Waryszak, 2000). Such an image is generally accepted to be based on functional consequences, and on the psychological characteristics, which consumers associate with a specific destination, by influencing tourist decision making behavior (Tapachai and Waryszak, 2000).

Recent studies of destination making and tourist behaviour focused on the analysis of the relationship between destination imagery and tourists preferences for the place (Sirakaya and Woodside, 2005; Son, 2005). For example, other studies have been carried out to explore the

positive and negative perspective of destinations, by analyzing several attributes (Pearce, 1982; McLellan and Fousher, 1983; Richardson and Crompton, 1988). These studies carried out that destination image influences tourist behaviour (Pearce, 1982). The wide number of studies on tourist destination image shows that image plays a key role in the marketing and promotion of destinations. In particular, Echtner and Ritchie (1991) show the existence of three factors that support the image of a destination:

A psychological/functional dimension.

The common/unique dimension.

Holistic/attributes axes.

In the last years, more pluralistic approaches to understanding tourism destination imagery formation have become louder (Feighey, 2003; MacKay and Couldwell, 2004). For instance, few of them have started to use photographs of the touristic destination for analyzing consumers' emotional response (Dann, 1996; MacKay and Couldwell, 2004; MacKay and Fesenmaier, 1997). To date, new methodologies to deliver touristic information have been proposed, most of them based on the use of ICT and, in particular on virtual and augmented reality approaches, which enable new ways to visualize complex data.

It is possible to improve the communication of destination imagery, by applying these tools in the tourism field and, as consequence, to create in tourist mind a virtual experience, or virtual test, of the destination attractiveness. In this case, the destination image is most exciting and capable to fast attract the attention of the visitor, which develops a more complex mental representation of the touristic place. In our opinion, these technologies offer new possibilities to communicate and to promote the asset of the touristic locality.

The future of destination image will need to harness these technologies to understand how improve touristic promotion and how influence on touristic behaviour. Destination imagery has many challenges and innovation will be a critical component. The innovation will have to be in harness with creative solutions attracting the future visitors.

APPLICATIONS OF ICTS TO TOURISM CONTEXT

The current research on the field of new technologies carried out new tools for a universal, interactive and ubiquitous communication access, which influenced the tourism industry. In fact, it allows tourist to achieve fast and reliable information, improves the service quality and the tourists satisfaction (Buhalis and Law, 2008).

In this scenario, many authors are focusing on the best application of ICT in the tourism sector in order to increase the added value of the touristic offer (García-Crespo *et al.*, 2008), which implies the creation of high customized tourist packages for users. As consequence, these technologies aim to have a pervasive effect on the creation, production and consumption of touristic products (Stamboulis and Skayannis, 2003). In fact, the buying of touristic products has been largely adopted via Internet and the Internet advertising is one of the main communication tools in the touristic sector (Wu *et al.*, 2008). In this field, the most used ICT are applied to realize virtual reconstructions of touristic destinations, for creating contents for mobile devices (e.g.

PDA, Smartphone, and iPod), web portals and their related recommendation systems, and for pervasive environments.

In fact, the virtual reconstructions are realized in order to create virtual environments capable to let users live the touristic experience via computer or devices for mobile communication. These reconstructions can be related to objects, models, and constructions. They can be very effective in the case of archaeological finds, because they reproduce the places and the objects in their original state.

As a meaningful example, we can consider the virtual reconstructions of the Temple of Lokroi (Southern Italy). The virtual reconstructions allow the tourists to visit the Temple in its original state, otherwise, today there are present only few ruins. The Virtual Reality applications are realized, therefore, to allow users to interact and explore the environment improving the quality of visiting experience. In this way, they facilitate the learning process, because they allow to live new and engaging learning experience. Furthermore, these virtual reconstructions are capable of promoting the protection of cultural heritage and, at the same time, they diffuse the heritage to a wide part of population, because they don't use invasive or corruptive techniques, which can cause the deterioration of the environment.

The use of web portals for creation of touristic packages supports tourists during the destination choice. Indeed, these systems provide several offers and allow tourists to create their favorite tourist package. Furthermore, they provide an intelligent matching between offered tours and the travellers' need and requests (Kanellopoulos, 2008). In this way, they help people to find the best package tour that satisfy their personal preferences (ibid., 2008).

To achieve this task, web portal are frequently equipped with recommendation systems, which are capable to choose one or more alternatives from a set of possibilities by a filtering process (Iijima and Ho, 2007). Hence, these systems provide tools to support tourists in finding the best solution based on his/her own profile (Schafer *et al.*, 2000). Moreover, a personalized recommendation system could retrieve the optimal product (Cao and Lee, 2007). The products can be suggested on the base of the top sellers on a web site, on the tourists demographics characteristics or on the past consumer' buying behaviour (Kwon, 2003). In this way, the recommendation systems can provide solutions which fit the tourists, by focusing on tourists' behaviour, preferences, requests and support their decision process.

Moreover, the use of mobile devices equipped with Global Positioning Systems (GIS) can give an information aid for archaeological visits (Cutri *et al.*, 2008). In particular, the tourists can access to the virtual reconstruction directly on their mobile devices. The GIS recognizes the geographical position and sends the information needed. Hence, these systems can simulate the visits for a wide range of environments. The virtual reconstructions of these ambient on the mobiles, therefore, allow users to enhance their tour. "This type of systems can mix real and virtual worlds, allowing the combination of the geographical location with the exact historical or cultural information" (ibid., 2008).

Very often, the interaction between user and system is multimodal. In fact, the user can exploit different input devices: voices, clicks on the display, or the geographical position recognition. The multimodality facilitates the interaction process (Oviatt, 2003a, b). Hence,

tourists can interact with the virtual environment, and they can use it to understand better the real one. In this way, the learning process is more productive, by requiring a less mental effort.

The use of pervasive environment for promoting tourist destination will be analysed in the next section.

PERVASIVE ENVIRONMENTS FOR PROMOTION OF TOURISTIC DESTINATIONS

The pervasive environments consist of three fundamental parts (Steventon and Wright, 2006):

The physical world where the user live.

The digital world (composed by the digital knowledge which influences the actions in the physical one).

The interface between the physical world and the digital one.

These environments are based on a decentralized computing landscape (Hansmann *et al.*, 2003). Furthermore, they focus on a large variety of small devices with enhance users' experience. In a touristic context, pervasive environments provide users the possibility to explore virtually the touristic destinations, by exploiting the opportunities offered by Virtual Reality and integrating several input and output devices. In fact, they allow users to explore the environment and interact with 3D objects and scenarios enhancing the visiting experience.

The application of these technologies enhances the tourism activity, because the system allows users to easy interact with the object present in the virtual environments. This interaction is multimodal, in fact, it is produces by several inputs: finger touch as mouse-click, voice, and body movements. In particular, the system is capable to recognize the users spatial movements (usually through webcam, or systems for the users shadow in the floor), and as consequence they can modify the projected images to give users the feeling of being really in the environment. This interaction creates a new standout, which engages the tourists and facilitates the learning process.

Moreover, the current research in the tourism sector is focusing on the developing of more realistic environments, strictly linked to the intelligent ambient with the function of touristic guide, in order to make the touristic experience more exciting.

The case of the Vibo Greek wall in Stereoscropy

A meaningful example of pervasive environment is the virtual reconstruction of the Vibo Greek walls by using the stereoscopic tools. The Greek walls located in Vibo Valentia city (Southern Italy) dates back in the V century B.D.. The walls aim to border the situ to the North East. These walls foresaw a defence guaranteed by the ditch and by the thickness of the walls as well as the opportunity of sorties from the doors¹⁹⁸.

Currently, there are present only few ruins of these walls (see Figure 1), but it has been possible to reconstruct them by using 3D graphical tools.

¹⁹⁸ Cfr: <http://www.virtualmg.net>



Figure 1: The current state of the Greek walls of Vibo Valentia.

In particular, we used a Virtual Reality Theatre (see Figure 2) based on two projectors, a wide screen, a tracking system and a 3D workstation which allows users to visualize three-dimensionally the Greek walls by exploiting the stereoscopic tools (Pantano and Tavernise, 2009).



Figure 2: The visualization of the Vibo Valentia Greek walls in the Virtual Reality Theatre.

The stereoscopy technique allows the 3D visualization of the reconstruction by using glasses with polarized lens. This is a visualization technique, which gives users a perception of three-dimensionality of the objects. The effect is caused by the combination of two images of the same object from different points of view. In this way, users are able to live a more immersive and engaging experiences into reconstructed environments.

Using this system, the tourists wear the special glasses for the stereoscopy in order to visualize the 3D environment, and then can explore and interact with through a computer mouse, which simulate the body movements in the environment. In this way, the system recognizes the tourist spatial position and changes the point of view in relation of his/her movements.

Hence, tourists can have the feeling to really walk over the Greek walls, explore them, interact with the objects and understand the original state of the walls (see Figure 3).



Figure 3: The visualization of the Vibo Valentia Greek walls in stereoscopy.

By a comparison of Figure 1 and Figure 3, it is possible to notice how tourist requires a less mental effort to understand the value of the current ruins, and to create the mental image of the original state.

The use of pervasive environments, therefore, can influence tourists during the decision making process, because they could have the desire to really visit the reconstructed places and really explore the man achieve more information on the history of these environments. In fact, on one hand the use of these technologies promotes the cultural resources of a place; on the other one it enhances the educational aspect of the holiday.

DISCUSSIONS

The analyzed technologies have the common characteristic to promote the touristic destinations in a new way, by involving tourists in living a new immersive experience. It is possible to compare their characteristics to investigate the other common points and the different ones, in order to propose the development of new technologies to be more efficient than the tools currently used (Table 1).

	Virtual reconstructions	Recommendation systems	Mobile devices	Web portals	Pervasive environments
<u>Interactivity</u>	yes	yes	yes	yes	yes
Multimodal Interaction	no	no	yes	no	yes
Customized information	no	yes	no	yes	no
Supporting decision making	no	yes	no	yes	no
Customized tourist packages	no	yes	no	yes	no
Supporting learning	yes	no	yes	no	yes
Recognition tourist' geographical position	yes	no	yes	no	yes

Table 1: The main characteristics of the most used ICTs in the tourism sector.

The Table 1 shows that the common characteristic of the ICT is the interactivity, which allows to enhance the tourist experience. It should be possible to integrate Virtual Reality tools to increase the performances of the system, as well as the quality of the services and, as consequence, improve the tourist perception of the touristic place. In particular, it is possible to integrate in a pervasive environment a recommendation system (or a web portal) with the mobile devices, by developing a software application available via mobile which is capable to provide the tourists information needed and supports him/her in the decision-making process.

In this way, the tourist who explores the 3D environment can access to more information and, as consequence, satisfy his/her knowledge needs. Hence, in the competitive contest among territories (Das and DiRienzo, 2009), these technologies are capable to emphasize the uniqueness of the cultural heritage of the territory in a new way, and to give territory an important added value in tourist perception. In fact, these technologies facilitate the creation of a mental destination image (Govers *et al.*, 2007). Therefore, the technologies influence the creation of the touristic image and, as consequence, they could play a key role in the tourist's buying behaviour of a tourism package.

CONCLUSIONS AND FUTURE WORKS

The main purpose of this paper was to analyze the current ICT for the promotion of the touristic territory, and in particular the case of the pervasive environments. We have described how the use of advanced technologies can contribute to make more attractive territorial touristic product. In fact, these technologies allow the development of on-line applications that can deliver rich multimedia contents, blending text, 3D images, sound and video in order to overcome the intangible nature of the product. The virtual reality technology based on video and interactive 3D visualization allow to consumers to test the product *in advance*. Furthermore, on one hand these technologies increase the quality of the communication strategies; on the other one they keep the information providers individuality, by exploiting the potentiality of the interactivity between tourists and computer. In order to manage these demands, concepts for individualized multi-layout presentation abilities and interactive presentation of tourism contents are used to support the consumer. To date, the ICTs offer the possibility to create touristic landscapes, which increase the quality of the delivered information. Also, it helps tourists to find what they are looking for and present it an easy pleasurable and meaningful way.

Moreover, the use of new technologies, and in particular of pervasive environments, becomes very efficient tools in the promotion of places with a strong archaeological value, as in the case of Vibo Valentia. In fact, they allow tourists to deeply the great value of that place in an easier way. The territorial attractiveness communication has an important role to promote the touristic potentiality. Indeed, the integration of different technologies and tools affects tourist's perception and the subsequent decision-making process, by increasing the perception of the tourists in exploring an environment that includes many assets.

In this phase, the study did not attempt to describe the user interaction with the system, but only to show some touristic applications of the pervasive environment for promoting territorial resources. However, research about what element to contribute to improve the touristic

attractiveness should be a high priority for future research. Future studies should identify the cognitive functions involved during the navigation in virtual environment and their impact on people's perception of the territorial attractiveness. Of course, the theoretical considerations described in this study must be interpreted with caution.

Furthermore, the analysed system will be tested with tourists to carry out qualitative and quantitative data in order to propose new tourism marketing strategies based on the use of pervasive environments for promoting tourist destination. In fact, a qualitative research will be carried out to analyze the tourists' point of view and their opinion on the experience, to implement the system.

Afterwards, it will be tested the application of 3D sound techniques in order to "increase the immersive experience in the virtual reality environments and hence prove a more realistic virtual environment" (Zhou *et al.*, 2004b) on the tourist experience.

In addition, the quantitative method will focus on a task analysis approach, based on the analysis of the users-system interaction. In particular, this analysis will have effects also on the Human-Computer Interaction (HCI) sector, due to the analysis of the interaction between users (tourists) and virtual contents.

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GREEN MARKETING. THE CASE OF TIMBER CERTIFICATION, COMING FROM SUSTAINABLE FORESTS MANAGEMENT, PROMOTION

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Purpose - The present research examines the possibility of certified timber promotion with sustainable forest management, developing an effective green marketing for the enterprises and the involved institutions of the Greek sector of timber.

Design / methodology/ approach - 55 specifically structured questionnaires, prototypes for the aim of the research, were collected from the Greek timber enterprises, on April 2009. The questionnaires were processed and analyzed with the statistical program SPSS of ver17.0, using descriptive statistics and correlation analysis. The main purpose was the investigation of knowledge, use and promotion of certified timber that emanates from forests under sustainable management, planning thus the green marketing.

Findings - The Greek enterprises of the timber sector, express a great interest on the protection of forests all over the world ranging from illegal loggings to their rational management. At the same time, they wish in their overwhelming majority the sustainable management of Greek forests to be certified.

These enterprises believe that the movement of green buildings reaches with a slow however pace also Greece and forecast that green consumers are prone to offer an additional percentage of about 6% on price, in order to buy certified timber products.

There exists big confidence in most Institutions of Higher Education (Universities and Technological Institutions) for the promotion of certified timber products. Companies propose their publicity through newspapers and magazines, as well as Internet portals of high approach.

Finally, the reflections on the growth of this new market of timber are expressed and discussed.

Practical Implications - The knowledge of the market of certified timber and the future developments in the next 5 years constitute a precious tool for the enterprises of timber, as well as the whole of the institutions involved in order to take proper decisions and conquer an important share of the market of green consumers. We also propose an effective way of green marketing applications.

Originality / value - It is the first research on green marketing and the promotion of certified products of timber in the Greek market, while similar work is very limited even on an international level.

Research Paper

Keywords: Green Marketing, Timber Certification, Forest Sustainability, Marketing Planning, Timber Market, Marketing Research

INTRODUCTION

Green marketing

In our days the environmental problems concern all active citizens, as well as enterprises and institutions all over the world much more than those thirty years ago. International researches show that the consumers worry more for the environment and change gradually their behaviour (Arbuthnot, 1977; Simons, 1992; Diamantopoulos et al., 2003). Thus, a market has begun to develop for viable or sustainable products, whose position the active consumers want to strengthen, since it is a way to contribute - although indirectly - to the protection of the environment (Cornwell and Schwegker, 1995; Cleveland et al., 2005).

The enterprises gradually recognize the various competitive advantages and the enterprising opportunities (Johri, 1998) that arise from this ecological consuming approach, entering the word "green" in many of their activities. Thus, in parallel with the concept of Corporate Social Responsibility, the concept of "green marketing" has also been cultivated with sufficiently effective practices.

As "Green marketing" we could name the planning, development and promotion of products or services that satisfy the needs of consumers in quality, output, accessible prices and service, without however a negative affect on the environment with regard to the use of raw material, the consumption of energy etc (Davis, 1991; Kangis, 1992; Meffet and Kirchgeorg, 1994; Jain and Kaur, 2004; Peattie and Grane, 2006; Grant, 2008; Pride and Ferrell, 2008).

Surely, green marketing must be more than either a green way of marketing, or the marketing of so-called green products according to Kangis (1992). Green has to refer both to the method and to the product. This is why the very idea of green marketing needs considerable development and analysis, with closed rules and integrity in economic, scientific, academic and ethical terms.

According to the literature, the environmental parameter has been included in the strategy of marketing from the beginning of 1990s (Herbigand and Butler, 1993; Lampe and Gazda, 1995; Peattie, 1999).

Notwithstanding the existing obstacles, "green marketing" progressively gains continuously more supporters, specifically in sectors that concern the climatic change and forest protection.

In Greece, even if we are in the initial stages of this tendency, green marketing is expected to strengthen and influence the market even more. It is reported that in the USA the "green market" is calculated at 250 billions \$, while 63 million of consumers are directed towards products that either protect the environment contrary to the conventional ones, or have been produced with processes that respect the society and the environment. The same consumers are prone to spend an additional 7-20% in order to buy pure "green" products and reject the non-viable alternatives, offered to them by the conventional market (Reitman, 1992). According to a recent research, at a world level, the positive fame of a company about its environmental responsibility is

determined by the 53% of consumers (roughly 1 billion) as a decisive reason that makes them buy and use its products (Spanos, 2008).

The "green consumer" concept was the epicentre of the environmental marketing strategies of the "win – win" type, as well as the key concept, on which marketing academicians and professionals focused at the end of 80s and in the beginning of 90s (Diamantopoulos et al., 1994; Elkington, 1994; Shrivastava, 1995; Porter and Van Der Linde, 1995; Chan and Lau, 2000). Wagner (1997) showed that at market segmentation using demographic criteria "*Socio-demographic attempts to profile the green consumer have not always yielded strongly indicative results, and the results produced in one study have been repeatedly contradicted in another*".

Of course, in order to forecast consuming environmental conscience, it is necessary to investigate the social demographic variables (Jain and Gurmeet, 2006), since thus we can achieve a better policy mapping for the placement of green products and the determination of the strategy of a marketing - mix that will be the most suitable for the various green market departments.

Generally, today we observe an increase of the ecological conscience of consumers which results in the increased demand for green products, a phenomenon that is well exploited by a great number of enterprises, which start offering green products and services (Chan, K., 1999; Ottman, 1992; Peattie and Ratnayaka, 1992; Salzman, 1991; Vandermerwe and Oliff, 1990).

A relevant research has elected that the consumers that are interested in environmental matters take their purchasing decisions with criteria beyond the usual consuming models. Thus, it is observed that they reject excellent technical products because they are conscious of their damaging consequences in the environment due to the productive process or their disposal or because this is a way to show that they disapprove certain activities of their producers, suppliers or investors (Drucker, 1973; Bernstein, 1992; Peattie, 1995; Peattie, 1999).

In 1991, the 13% of all new products, sold in the USA made some sort of environment claim (Davis, 1991; Horovitz, 1992). The bigger problem both for marketers and consumers appears to be the environmental terms that are used for the promotion of their "green" or "ecological" products. Terms as recyclable and friendly to the environment have suffered hard criticism and today are avoided by the enterprises because of the difficulty of their definitions' documentation (Lampe and Gazda, 1995). In the USA, in 1990 a research showed that the problem faced when promoting "green" marketing was the increased number of consumers that did not believe in the companies' environmental statements (Schwartz, 1990). Thus, the creation of marketing strategies that used sonorous messages of sustainability met serious difficulties for the enterprises and specifically their creators (Shelton, 1994).

In their research Lampe and Gazda (1995) pointed out that "*every aspect of the product: design, production, packaging, use and disposal, provides an opportunity for a company not only to protect the environment but also to benefit from positive consumer attitudes towards the environment*".

In the Greek market, a recent research (2009) realised by the Athens Laboratory of Research in Marketing in collaboration with the Centre of Sustainability (CSE) about the "green marketing" proved among others that the overwhelming majority of the consumers (92.8%) has a positive attitude towards the enterprises that are sensitive on environmental matters. This

result represents mainly women of bigger age, married with children, housewives and pensioners. The 96.4% declare that the enterprises are compelled to contribute in the protection of the environment, while the 56% of these avoid products made by enterprises that do not respect the environment. The same research elected that the more basic reasons that enterprises strategize for the protection of the environment are in order to improve their image in the market (4.54), to differentiate from competition (3.92), to gain publicity (3.84), to increase their sales (3.63), to achieve favourable taxation (3.54) and finally to really contribute to the protection of environment (3.47).

Pittee (1995), Van Dam and Apeldoorn (1996) elected that ideas round what it could constitute sustainability for enterprises or at least sustainable marketing are: a redefinition of the "product", a willingness to change markets, an emphasis on benefits from product use, marketing communication that aims to inform rather than just impress, a focus beyond current consumers needs, a willingness to manage demand and expectation downwards, an emphasis on cost instead of price and taking more responsibility. Finally, Grant (2008) points out that "sustainability changes everything", while Johri (1998) shows that the future of green marketing strategy passes through the perception that consumers like "green" messages.

In the European Union there exist organisations that support enterprises to develop in a sustainable way, providing modern and practical methodologies and applying environmental and social criteria, such as the: Centre for Sustainability and Excellence (CSE), Global Reporting Initiative (GRI), United Nations Global Compact, European Foundation for Quality Management (EFQM), European Business Ethics Network (EBEN), European Committee (EC) etc (Avlonas, 2008).

"Green marketing" is considered by many researchers as an important opportunity for the enterprises to innovate even more and acquire an important advantage against the competition (Ottman, 1998; Kaufman, 1999; Laroche et al., 2001).

Pride and Ferrell (2008) consider that the objectives of green marketing should be: a) to eliminate waste, which should focus on the production of products without waste instead of getting rid of waste, b) to re-invent the concept of product in order to become consistent with the environmental commitment, g) to price the products portraying the real cost, which means high value for the money of the consumer and d) to create profitability via the creation of operational occasions that derive from the environmental conscience in the market.

In a study that was realised in the Great Britain, the researchers initially concluded that in general the ecological attitude of consumers changed positively. Nevertheless, these tendencies were not translated into real purchasing behaviour (Donaldson, 2005). This study reported the strong faith of consumers in the known commercial brands and in the feeble behaviour referring to the "green" claims, which was the main cause behind the consuming failure to interpret their concerns beyond the environment in their behaviour.

A comparative study examined how British and Rumanian enterprises promoted their green products in international markets. The conclusions presented are that while the British enterprises had focused their attention on the world fame of their products in order to promote the green claims to international consumers, the Rumanian ones had rested in the sales of agents supporting their green claims in the foreigner markets (Gurau and Ranchhod, 2005).

In a recent study (Alsmadi, 2007) that investigates the environmental behaviour of Jordanian consumers, a high level of environmental conscience is revealed. Unfortunately however this positive tendency and preference in the "green" products does not appear in the practice, obviously because this consumers have a stronger faith in the traditional products and a small confidence in the green statements. The above obstacles are further strengthened by the lack of environmental conscience by a lot of enterprises and the existence of a large scale of prices for the same product, many of which included an impetuous estimate of environmental responsibility. The same phenomenon has been presented in other researches too (Ottman, 2004; Donaldson, 2005; Cleveland et al, 2005).

Recognizing the role that the consumers can play in the protection of environment and ensure a better life for the future generations so much the governments, as well as the non governmental organisations have begun to aim at environmental campaigns in this consumer – target group (Wasik, 1992; Grunert, 1993; McGougall, 1993).

Grunert (1993) finds the important differences between the persons that belong to different professional groups with regard to various environmental departments of conscience. Although the contact of profession with the environmental conscience differs from product to product, the results general show that are the groups referring to housekeepers and/or professionals and services that have the strongest environmental conscience with regard to most of the environmental fabrications.

Naturally, all consumers are not always fervent and factual supporters of the protection of environment and certainly are not particularly influenced by the "green" marketing. However, they constitute a target group which can prove particularly profitable and effective for the enterprises that will be activated in the sectors of production and disposal of friendly to the environment products (Diamantopoulos et al., 2003; Jain and Kaur, 2006).

Creating more sustainable marketing strategies is expected to be a difficult process, since the majority of consumers still ignore what is finally mend by sustainability and remains undecided about the capability of enterprises to contribute to the protection of the environment. Becoming winners of this battle will be the key challenge for marketers of the new millennium (Davis, 1993; Peattie, 1999; Jain and Kaur, 2003; Murphy, 2005).

Timber certification coming from sustainable forests management

Today the "activation" of society for the protection of the environment has set the protection of forests and their rational and sustainable management, as priorities of its "agenda".

The negotiations of the first period of the Kyoto protocol obligations (2008-2012) and the following one (after 2013) are being in development. Key subjects, related to the forests include the reduction of emissions from the deforestation and the devalorisation of forests and the economies of forest management and the harvested forest products (Stevens et al., 1998).

This interest began as an organised movement, from the beginning of 80s, when it was decided the commercial embargo (boycott) of the tropical timber from the European and American markets. However this metre created enormous social problems to the populations of these countries, so in 1990 a non governmental environmental organisation was constituted

under the name "Alliance for tropical forests – RFA" aiming at the promotion of products from forests of sustainable management. In 1993 the Council of Forest Management or Council of Care of Forests (Forest Stewardship Council – FSC) was founded in collaboration with environmental organisations, wood processing industries and big forest owners, while in 1999 a new institution, the PEFC was founded by the small forest owners of Central Europe (Hansen, 1997; Humphries et al., 2001; Cashore et al., 2003).

Finally, today the certified forest regions reached the 320 million hectares worldwide in the middle of 2008 (UNECE and FAO, 2008).

The sustainable managed certified forests occupy the 8.3% of total extent of forests all over the world and the 13.4% of forests that they manage. The countries of Western Europe have certified more than the 50% of the total extent of their forests, in North America more than the 1/3, while in Africa and Asia only 0.1%. Roughly the 80-90% certified forests in the world are found in northern hemisphere, where the two thirds of world production of round timber are produced. More from half (57%) of the certified forests are found in Northern America (UNECE and FAO, 2005).

Globally the United Kingdom, the USA and Germany have the most certified institutions, while outside from UNECE region, Japan, China and Brazil are the leaders in this classification (UNECE and FAO, 2008).

According to the report of FAO (2007) the certification of the management of forests and the production of timber products with labels play a very important role in the social role of forests. The environmental importance of raw materials used by the timber sector predicates both to state and common opinion to show a special interest in the application of regulations and safety valves against the waste of the specific materials (Stevens et al., 1998).

The fundamental aims and objectives of forest certification are: a) the improvement of the management of forests, b) the guarantee of new markets, capable for the absorption of produced certified products and g) the control of certification of all processes up to the sale of final products, in order to safeguard their sustainable origins (Hansen, 1997; Hubbard, 2005; Sustainable Green Ecosystem Council, 2008).

In a relative research (Tosiaki et al., 2006) is pointed out that in Finland, where there exists some important experience on the forest certification, the enterprises of the timber sector do not have any expectations of gaining more money from an "additional price" paid by the consumers. On the contrary, they do so because they believe in the viability of their forests and for their own well being within the frame of their corporate social responsibility. Besides they consider that through this certification, they will play a more dynamic role in the exploitation of new markets.

Both in the USA, what in W. Europe there are promoted development programs on "green buildings" which increasingly influence the conditions of the market for forest products in both positive and negative ways (World Green Building Council, 2008; UNECE and FAO, 2008). The movement of "green purchasers" that was developed during the last years in N. America and W. Europe starts appearing in a slow but regular pace in Greece, creating a niche market area. The possibility of exports in countries with increased "green" purchasing public is particularly seductive.

Today the number of Greek consumers of biological, ecological and certified products is rather limited, although a slow increase has been forecasted (Stamou, 2005).

The certification of the sustainable origins of forest products can be used by the Greek enterprises that are activated in the timber sector as an effective Marketing tool for the extension in new markets and the improvement of their ecological profile (Juslin et al., 2002; Poku - Marboah et al., 2005; Papadopoulos and Karagouni, 2007)

According to the ever memorable Professor of the Faculty of Forestry in AUTH Dr N. Stamou (2005):

- the certified products of timber sooner or later will prevail and check this market that will emanate from sustainable and environmentally friendly managing forests
- The role of the consumer with environmentally friendly behaviour –final purchaser of products of timber –will become continuously more important, so that products of timber that will not emanate from sustainable managing forests will not be able to easily find a place in the market.
- The enterprises with certified products of timber will be gradually developed.
- The existence and viability or the exclusion of enterprises of timber in the market will be directly influenced by the environmental sensitization of citizens.

In the market of forest products there exists an important amount of research that has dealt with the certification of sustainable management of forests and certified products of timber that emanate from this forests (Hansen, 1997; Karna et al., 2003; Rametsteiner and Simulab, 2003). Many researchers underlined the eagerness of consumers to pay some price for the purchase of certified products (e.g., Rametsteiner, 1999; Jensen et al., 2003; Ozanne and Vlosky, 2003). Still, there is not much research done on the promotion of certified products in the timber and furniture market (Juslin and Kansen, 2002; Tosiaki et al., 2006).

In order to cover this void, the aim of this research was the investigation of Greek enterprises and involved institutions on timber subjects, in order to map the existing situation and analyze the prospects of growth of certified products of timber coming from sustainable managing forests. Besides, one of our intentions was the location of the benefits and prospective reflections that could result when entering such products to the market. The analysis would lead to the determination of the 4 Ps of green marketing (product, price, place, promotion), so that Greek enterprises and Greek consumers are supplied with green products effectively and contribute directly and / or indirectly to the protection of the environment in the best possible ways. This research aspires to constitute a precious tool of effective application of green marketing in this direction with medium-term or even long-term objectives.

METHOD OF RESEARCH

The data of this primary research were collected using the method of questionnaire formulation, collection and elaboration. The questionnaires were specifically structured for the aim of the present research, according to the basic principles of marketing research (Gordon and Langmaid, 1988; Tull and Hawkins, 1990; Doyle, 1998; Aaker et al. 2004). The essential

preconditions of green marketing, that is the responsibility, the transparency, the reliability and the perspicacity as well as the connection with the strategy (Avlonitis, 2008) were also taken into account. The researchers are special scientists and addressed the company executives with personal interviews. The questioned sample was selected after particular processes, when considered capable to answer.

The research questionnaire included 3 different groups and comprised by 37 questions in total. The first team included 9 questions relative to the general characteristics and the profile of each enterprise (name, address, legal form, year of foundation, activities, main products, occupied personnel etc). The second group included 11 questions relative to the application of the directive of European Union that referred to the CE marking for the products of timber in Greece and finally 17 close-type questions on knowledge, use and promotion of certified timber from sustainable managing forests in Greece.

55 enterprises and institutions were randomly selected. They are all directly related to the Greek timber market and they were questioned during their presence at the International Trade Show of FURNIMA (Furniture Machinery Exhibition) carried out in Thessalonica, in March 2009. The questions were structured to be short and comprehensible in order to be pleasantly answered.

The pilot application of the questionnaire in five companies revealed the weak points of questions that needed more elaboration, which led to a further improvement of the questionnaire quality in its final form (Dillman, 2000).

The data were registered, processed and analyzed with the special statistical program SPSSWIN ver 17.0. The analysis includes Frequencies, descriptive statistics (Descriptives) and Crosstabs, controls of independence among all the variables with the X^2 criterion, correlation analysis and analysis of variance (t - test) (Norusis, 2007; Howitt and Cramer, 2003).

RESULTS

The green marketing mix, the reflections on the certified timber market development when it comes from sustainable managing forests and the profile of the enterprises involved in this research are presented in the following paragraphs.

The green product – The certified timber coming from sustainable managing forests.

The concept of certified timber, as well as the concept of forest viability appears to be familiar at roughly half of those involved in the Greek market of timber (Figure 1). Still, the concept of certified timber produced from sustainable managing forests is rather hazy for the 24% of the asked. The relevant analysis regarding the legal form of the enterprises showed that no LTD and Trade Companies is familiar to the concept, while the 61.5% of SAs have a good knowledge on it. X^2 controls showed that the knowledge of certification appears to relate statistically positively with the annual turnover of the enterprises (Pearson $X^2 = 19.136$, Cramer 's $V = 0.516$ for sig. level > 90%, Approx. Sig = 0, 085). More concretely, the bigger the annual turnover of an enterprise, the more the knowledge that exists about the real significance of certified timber products from sustainable managing forests.

Accordinging the years of operation it appears that the enterprises that have been founded during the decays 1991-2000 and 1981-1990 possess the deeper knowledge of the concept at a percentage of 66.7% and 58.8% respectively. The knowledge of this concept is well under the mean for the newer enterprises (year of foundation > 2000), as well as the oldest ones (< 1980).

Things are quite different when asking about the concept of the sustainable forest management; it is noted that the 87.5% of new enterprises (year of foundation after 2000) and the 66.7% of the ones founded during the decade 1991-2000 reveal a much better knowledge of its significance. Besides, the significance of forest viability is familiar to the forest world since the 19th century, while hardly the last seven years it appears to be widely used in other sectors - at least in Greece. Concerning the number of occupied personnel it appears that the enterprises that have less than 10 employees (60.0%) possess the deeper knowledge of the concept.

The knowledge of the concept is related statistically negatively with the annual turnover of the asked enterprises (Pearson $X^2 = 11.619$, Cramer's $V = 0.568$ for sig. level > 90%, Approx. Sig = 0.071). More concretely, the smaller the annual turnover of an enterprise, the more the knowledge that exists about the concept of sustainable forest management.

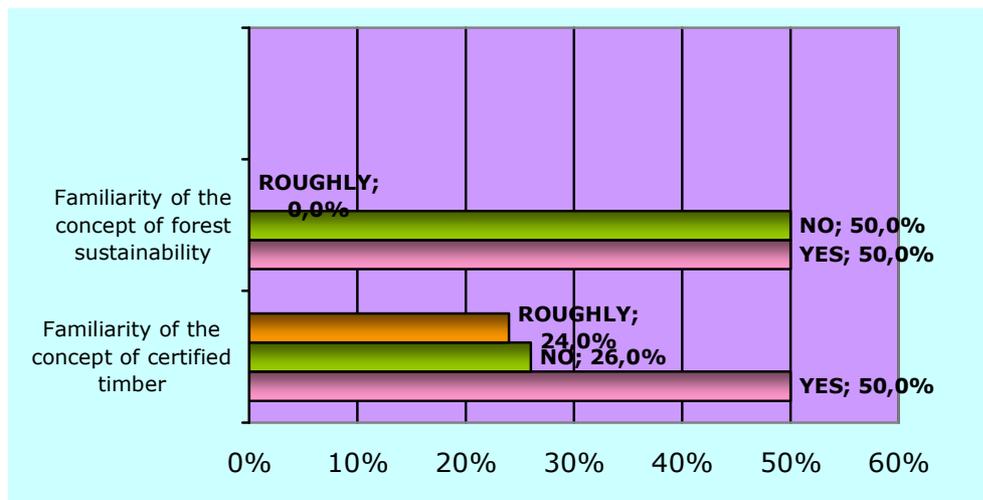


Figure 1. Knowledge of the concepts of certified timber and sustainable management of forests

Figure 2 presents the interest of the interviewees in the protection of forests all over the world from both illegal loggings and the non-rational management. It appears to be important at a percentage of 94.1% (62.7% "too much" and 31.4% "very much") and it proves the sensitivity of Greek institutions of timber concerning the protection of sources of the products they process, trade or manage. This interest is far more than natural if we remember the devastating fires in summer 2007 that burnt to ashes more than 200.000 hectares of forest in Greece. This fact appears to create favourable conditions for the promotion of certified timber from sustainable managing forests.

According to the crosstab analysis, individual enterprises show a great interest at a percentage of 29.6%; well below the mean (62.7%). This can be explained, since individual enterprises are run by the entrepreneur him/herself and everything has to be done by him/her. Consequently their interest for the protection of forests comprises a secondary interest.

What seems rather strange is the fact that the enterprises that declared a minor interest in forest protection are the very big ones, i.e. those that occupy more than 100 employees. Furthermore, there exists a statistically significant negative correlation between the interest of forests' protection from illegal logging and their sustainable management and the number of occupied personnel (Pearson $X^2 = 41.277$, Cramer's $V = 0.586$ at a sig. level $> 99.9\%$, Approx. Sig = 0.000). That is to say, the more the personnel number the less the interest for the protection of forests. In other words, the more impersonal the enterprises the more they focus in profits and the more indifference they show, since they leave problems to be resolved by other more "romantic" actors.

A small percentage of enterprises (3.9%) shows no interest in the consequences of thoughtless logging of forests on the timber market, while the overwhelming majority declares that they will be very negative at a percentage of 45.1% and simply negative at a percentage of 51.0% respectively.

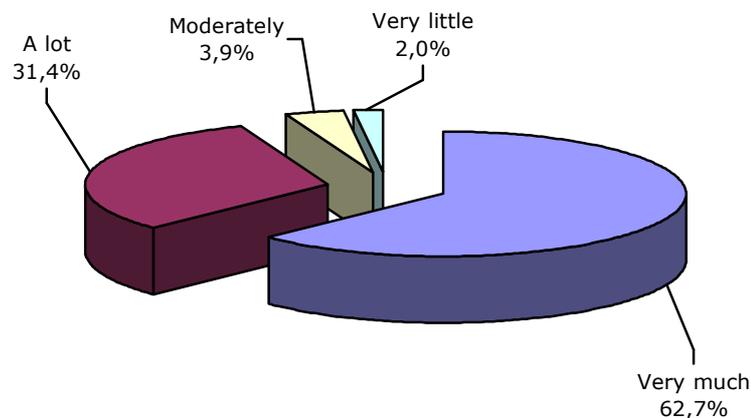


Figure 2. Interest for the protection of all forests in the world from the illegal loggings and their non rational management

The first impressions of the asked enterprises about the predominance in the market of timber from certified forests are presented in Table 1. The tendency of necessity for direct imposition of this opinion in the market of timber is slightly ahead at a percentage of 35.3%. They further believe that there will shortly appear a kind of pressure from the consumers to the enterprises of timber and furniture to produce certified products at a percentage of 31.4%. Of course, in this question there is also some reserve and reflection expressed on the difficulties of application of such an undertaking from the 1/3 of asked enterprises. Finally there is also the pessimistic view of the 9.8% that considers that such an application will create big problems for their enterprises.

<i>a/a</i>	<i>Predominance of certified timber in the market</i>	<i>Percentage %</i>	<i>N</i>
1	<i>This opinion is immediately imposed to prevail</i>	35,3	18
2	<i>Difficulty in the application in the market</i>	33,3	17
3	<i>There will be pressure from the consumers to the enterprises of timber and furniture to produce certified products</i>	31,4	16
4	<i>Sooner or later this opinion will prevail</i>	27,5	14
5	<i>There does not exist consuming conscience for use of products that protect the environment</i>	27,5	14
6	<i>It will influence considerably the structure and the composition of the market of products of timber</i>	23,5	12
7	<i>There will exist pressure from the state to timber and furniture enterprises to produce certified products</i>	13,7	7
8	<i>It will create important problems in the enterprises</i>	9,8	5

Table 1. Opinions of asked enterprises on the predominance of timber from certified forests in the market

In Greece the only sustainable certified forest is the "Mainalo forest" in Peloponnesus since 2004, although it is not also particularly known even in the Greek market. A 45.1% declared the certification of Greek forests for production of timber through sustainable management as very essential (while a percentage of 51.0% declared it as simply essential (Figure 3). That was quite normal after the above mentioned thoughts on forest protection. Besides we should also point out that in any case the overwhelming majority of Greek forests are sustainable managed but they just lack a "formal" certification.

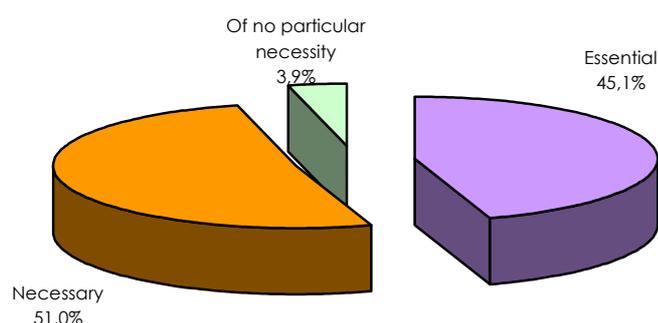


Figure 3. Opinions on the necessity of certification of Greek forests for the production of timber from sustainable management

In a first research in the Greek timber market, we posed the question of knowing the movement of "green" buildings; that is to say buildings that have the minimal possible consumption of energy and use materials that protect the environment. This is applied with success in the USA initially and in certain countries of Western Europe with success the very last years. In all "green" building manufacturing the raw material is timber from sustainable managed forests.

According to UNECE and FAO (2008) the policy of promotion of "green buildings" contributes to the continuously stronger promotion of timber certified products from certified forest regions. Norway, Finland and Luxembourg use certified timber to a large extent because of the high degree of certification of their forests, while Switzerland, Slovenia, Czech Republic and Liechtenstein have created a relatively good market of certified timber, specifically in the retail sector of "do it yourself". In Germany and the United Kingdom a lot of products in the manufacturing sector bear labels of certification. In France, where the use of timber in the manufactures today is relatively low (10%), the objective is to increase it to 12.5% till 2012. Finally, Italy appears to be particularly active in the sector of green buildings, although there is only a 5.3% of enterprises that produce doors, windows and floorings that have been certified relatively.

In the Greek market even if the presence of "green" houses is very timid, it is shown by this research that this movement is almost known to Greek enterprises at a percentage of 62.7% (Figure 4). This fact denotes that there is no need of a big promotional effort in order to inform Greek enterprises on this subject. This finding is further confirmed by the fact that the 94.1% of these declare that green houses might create a positive set also in Greece (Figure 4). Where will be supposed to give particular emphasis is the intense advertising informative movement towards consumers and particularly those that constitute initially the target - market ("green consumers").

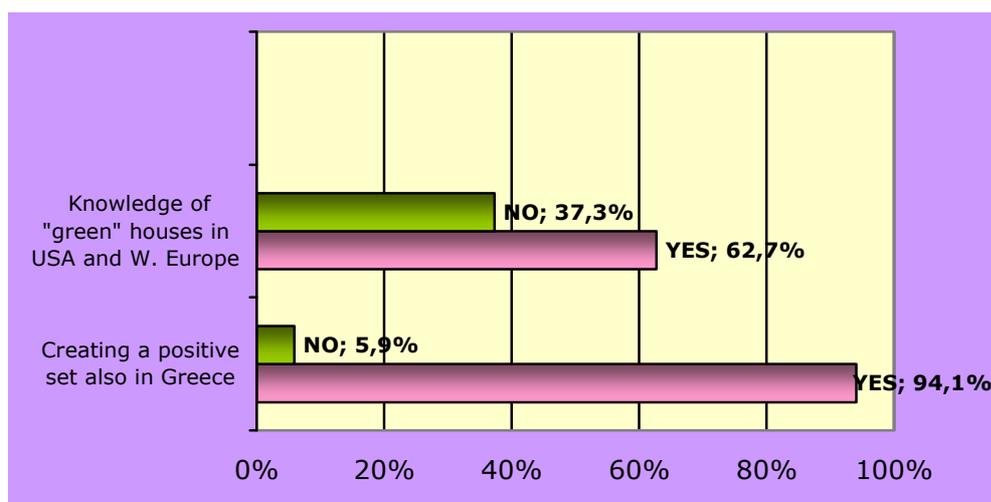


Figure 4. Knowledge of the "green" houses movement in W. Europe and USA and prospects of creation of a positive current also in Greece

The forecast of Greek timber enterprises on the growth of the institution of "green" houses in Greece refers to the next decay at least, with the majority (42%) declaring that this will happen after 10 years, while the same percentage forecasts a development during the next 5-10 years (Figure 5). GPs appear to be the most optimistic at a percentage of 22.2%; they believe that this institution will be developed very shortly in 3-5 years, while the Ltds in their bigger percentage (66.7%) believe that "green" buildings will start creating some important current in the Greek market in 5-10 years.

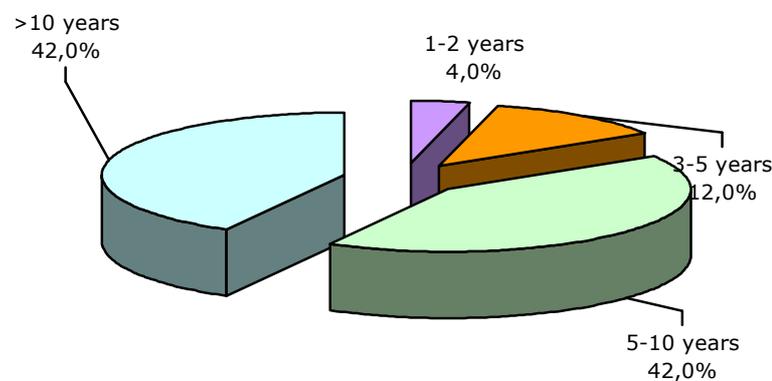


Figure 5. Years in which a development of "green buildings" is expected in Greece

Green pricing

Figure 6 presents the additional percentage that the enterprises consider that consumers are prone to pay in order to choose certified timber from sustainable managed forests or those that are supplied with furniture products and know that these have been produced using certified timber as raw material. Their majority (41.2%) believes that it must not exceed a 1-5% of their conventional value. The weighted average of this additional price amounts in 5,6%. A similar research (Owari et al., 2006) showed that this rate for the Finnish timber oscillates from 1-4%.

Control X^2 showed that the additional percentage of money that the consumers would pay for the above product is statistically related a) with the legal form of the sample enterprises (Pearson $X^2 = 37.249$, Cramer's $V = 0.465$ at a sig. level >95%, Approx. Sig = 0.011). That is to say, individual and GPs consider that this percentage should be the lowest possible (under 5%), while the Trade Companies have the tendency to propose much higher percentages, and b) with the annual turnover of the enterprises (Pearson $X^2 = 38.112$, Cramer's $V = 0.514$ at a sig. level >95% Approx. Sig = 0.034, kendall 's tau - c = 0.056), that is to say, the smaller the annual turnover of enterprises the bigger the percentages they propose for the consumers to pay. Obviously they wrongly believe that it constitutes a good "occasion" in order to increase their income.

The same Figure (6) further presents the estimates made by the enterprises of the research sample that the demand of certified timber will lead to increase of prices comparing with the already existing relevant products in an average weighted level of 9.8%.

A rather important divergence (4.2%) is observed when comparing the two above mentioned percentages, that is to say what consumers are prone to pay (5.6%) and the increase in the prices of the market (9.8%). It is the Greek market alone that eventually will show the price of balance.

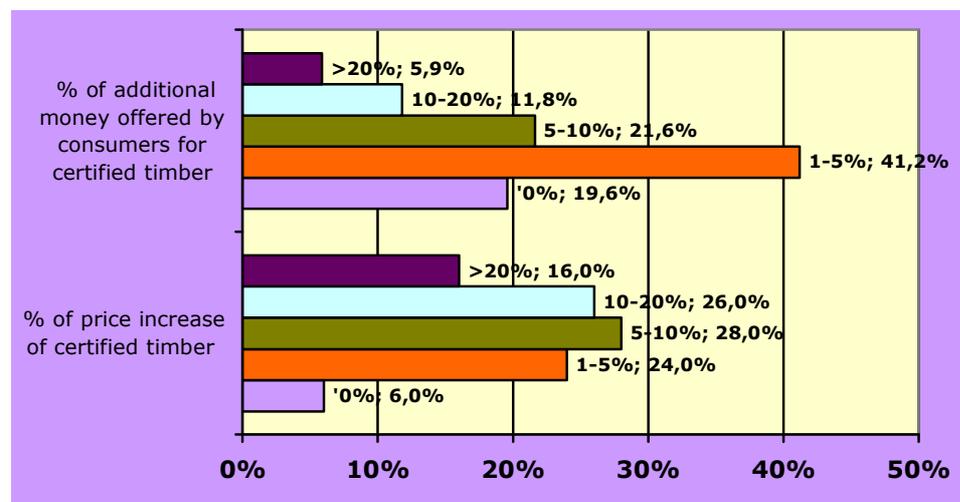


Figure 6. Percentages (%) on a) price increase because of certified timber concerning "traditional – conventional" products and b) the additional money consumers are prone to pay in order to buy certified timber or furniture end – products which will guarantee safety and will emanate from environmentally protected regions

Green marketing channels

Tables 2 and 3 present the proposed institutions that are directly or indirectly involved in the disposal of certified timber from sustainable managed forests or general named "channels of internal communication". Their sorting showed that the institution that the sampled enterprises consider as the first timber promotion priority are the wood working industries (mean 1.88) with lumbermen and furniture producers following.

Among the institutions that support the timber and furniture sectors, that is to say the channels of exterior communication, Universities and Technological Educational Institutes appear to enjoy the bigger confidence. They are considered independent, objective institutions with specialised knowledge (mean 4.58). The public opinion makers (4.94) and the contractors – constructors (5.02) follow.

Control X^2 showed that the big confidence given by the asked enterprises to Universities and Technological Educational Institutes appears to relate statistically with the annual turnover of the enterprises (Pearson $X^2 = 70.051$, Cramer's $V = 0.569$ at a sig. level >95%, Approx. Sig = 0,021, Kendall's tau - c = 0,052), that is to say, the smaller the annual turnover of the enterprises the

more they entrust the institutions. This is due to the characteristics of the Educational Institutions that were mentioned before.

The relevant controls X^2 for all the institutions resulted that there does not exist any statistically important relation among them at least for a confidence level $> 90\%$.

<i>a/a</i>	<i>Institution</i>	<i>Mean</i>	<i>Sorting (%)</i>		
			<i>1</i>	<i>2</i>	<i>3</i>
<i>1</i>	<i>Lumbermen</i>	<i>1.94</i>	<i>40,8</i>	<i>32,0</i>	<i>26,0</i>
<i>2</i>	<i>Timber processing industry</i>	<i>1.88</i>	<i>24,5</i>	<i>48,0</i>	<i>26,0</i>
<i>3</i>	<i>Furniture producers</i>	<i>2.22</i>	<i>34,7</i>	<i>20,0</i>	<i>48,0</i>

Table 2. Channels of internal communication through which the message of certified timber disposal is supposed to pass (scale 1-3 with 1 = most important)

<i>a/a</i>	<i>Institution</i>	<i>N</i>	<i>Mean</i>	<i>Std Deviation</i>
<i>1</i>	<i>Universities and TEI</i>	<i>50</i>	<i>4,58</i>	<i>2.56</i>
<i>2</i>	<i>Public opinion makers</i>	<i>49</i>	<i>4,94</i>	<i>2.95</i>
<i>3</i>	<i>Contractors-constructors</i>	<i>50</i>	<i>5,02</i>	<i>2.45</i>
<i>4</i>	<i>State institutions</i>	<i>49</i>	<i>5,27</i>	<i>2.56</i>
<i>5</i>	<i>Private Consumers</i>	<i>50</i>	<i>5,43</i>	<i>3.13</i>
<i>6</i>	<i>Architects</i>	<i>50</i>	<i>5,54</i>	<i>2.35</i>
<i>7</i>	<i>Government</i>	<i>50</i>	<i>5,74</i>	<i>3.89</i>
<i>8</i>	<i>Civil Engineers</i>	<i>50</i>	<i>5,80</i>	<i>2.75</i>
<i>9</i>	<i>Interior Designers</i>	<i>50</i>	<i>5,98</i>	<i>2.62</i>
<i>10</i>	<i>Public Service</i>	<i>49</i>	<i>6,10</i>	<i>3.03</i>

Table 3. Channels of exterior communication through which the message of certified timber disposal is supposed to pass (scale 1-10 with 1 = most important)

Green marketing communication - Green promotion

The publicity and promotion of certified timber that comes from sustainable managed forests constitute a necessity for the 63.8% of enterprises that participated in this research (Figure 7).

Control X^2 elected that the above necessity relates statistically significantly with the legal form of the asked enterprises (Pearson $X^2 = 25.453$, Cramer's $V = 0.571$ at a sig. level $> 99.5\%$, Approx. Sig = 0.005). That is to say, the individual enterprises and LTDs consider this necessity much bigger than the SAs which do not consider it too important.

The concept of the promotional energies is presented in Figure 8.

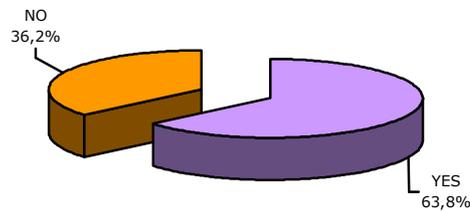


Figure 7. The publicity and the promotion of the use of certified timber as a necessity in percentages %

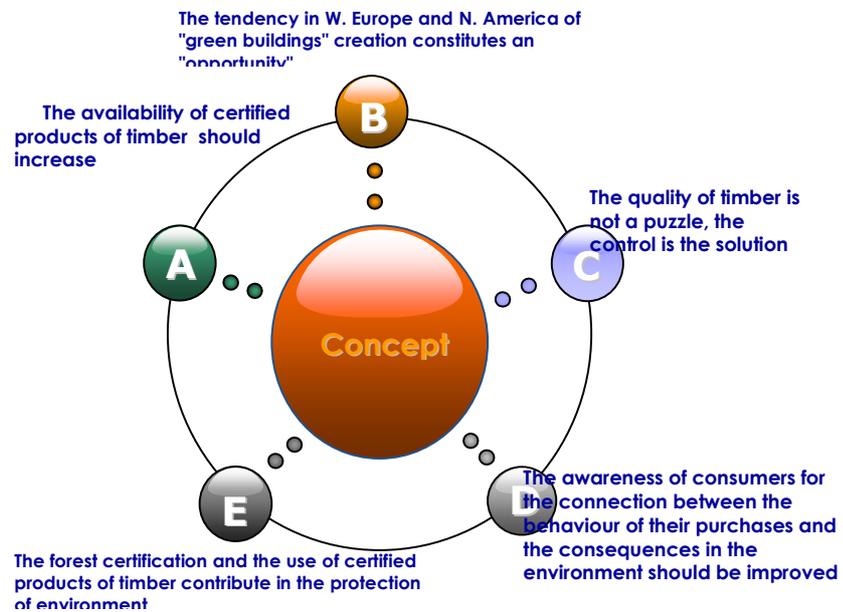


Figure 8. The promotion concept of certified timber use

Communication actions proposed by the enterprises of the present research (Table 4) as necessary are the traditional means (newspapers and magazines) ranking first at a percentage of 60.7% and immediately afterwards the use of Internet with the publicity of certified timber (that emanates from sustainable managed forests) in high visiting portals (50.5%). The use of Internet ranking high when evaluated as a means of communication was also noted in a relative research for the Finnish timber (Owari et al., 2006). There seems to be a rather small preference in collaborations with non governmental organisations or consumers unions (28,1%) as well as the use of Internet through special web pages such as facebook, blogs etc Particularly the last

mentioned media are not too familiar to the asked enterprises, which do not seem to know their effectiveness in the message promotion.

Press publicities could be communicated in Greek special magazines of the timber and furniture sector (eg Epipleon, Wood And Furniture etc), or sector bulletins that could be interested in such information such as engineering and interior design magazines, as well as decoration magazines addressed at consumers and Sunday newspapers.

The main aims of the events and meetings could: a) the reinforcement of public environmental conscience, b) the encouragement for a wider use of timber, c) the emphasis on the quality of wooden manufactures and furniture production and d) the diffusion of technical information on the products of timber

<i>a/a</i>	<i>Communication actions</i>	<i>Percentage %</i>	<i>St.dev</i>
1	<i>Publicity in newspapers and magazines</i>	60,7	31,8
2	<i>Internet and portals of high visiting rate</i>	50,5	33,1
3	<i>Creation and frequent mission of material at professionals and technical companies</i>	47,6	28,7
4	<i>Frequent newsletters to sent as SMEs and professionals</i>	46,0	33,8
5	<i>Organisation of events – meetings</i>	39,1	26,6
6	<i>Whole - page advertisements</i>	39,0	25,4
7	<i>Collaborations with Non governmental organisations, consumers unions etc</i>	28,1	23,5
8	<i>Internet through Facebook, Blogs etc</i>	20,2	24,2
9	<i>Other</i>		

Table 4. Percentage % of use of communication actions for the promotion of certified timber

The reflections

Table 6 presents the reflections brought up in discussion by the enterprises referring to the entire subject of green marketing and the promotion of certified timber from sustainable managed forests, in order to specify suitable measures and limit any risk as far as possible.

The most important question they place is the extent to which consumers, the conditions of the market and the competition allow the turn to green marketing. The second place belongs to the problem of the price, the guarantees and the economic benefits such as discounts – if any that will support the product. Both questions are rated with a 4.15 (with 5 to mean totally important). Product cost accounting (3.89) receives an intermediate importance, while distribution channels and the network of intermediaries seem to slightly puzzle them.

Since all 12 factors presented at Table 5 are related to each other, a cross-correlation analysis was contacted using Pearson correlation. The results are presented in Table 6.

At a significance level of 0.01 the factors that influence one another are:

1. The factor "Raw Materials, brand name, package, size, colour and general appearance of product" called Product Characteristics from now on with the one referring to " Distribution channels and more specifically networkS of intermediaries " (Pearson correlation coefficient = 0.462)
2. The factor of Product Characteristics with the "best quantity of production " (Pearson correlation coefficient = 0.385)
3. The factor about the capability of the existing productive capacity of enterprise referring to mechanical equipment, technical knowledge, building installations etc to cover the new needs with the one asking about the sufficiency of enterprises (salesmen, distribution means, employees in the marketing department etc) (Pearson correlation coefficient = 0.383)
4. The factor dealing with the price, the guarantees, and the economic benefits such as discounts – if any- that will support the product, with the Product Characteristics (Pearson correlation coefficient = 0.382)
5. The factor of the height of new investments with the variable cost and the overload the constant cost, the disposal expenses, publicity and generally production (Pearson correlation coefficient = 0.377)

<i>a/a</i>	<i>Communication actions</i>	<i>Importance</i>	<i>St.dev</i>
1	<i>The extent to which consumers, market conditions and the competition allow this development.</i>	4.15	0.93
2	<i>The price, the guarantees, and the economic benefits such as discounts – if any- that will support the product</i>	4.15	1.04
3	<i>Raw Materials, brand name, package, size, colour and general appearance of product</i>	3.98	1.06
4	<i>The capability of the existing productive capacity of enterprise referring to mechanical equipment, technical knowledge, building installations etc to cover the new needs</i>	3.89	1.00
5	<i>The variable cost and the overload of the constant cost, the disposal expenses, publicity and generally production</i>	3.89	1.07
6	<i>The process and the time of replacement of traditional timber with certified</i>	3.83	1.09
7	<i>The height of new investments</i>	3.78	1.05
8	<i>The sufficiency of enterprises (salesmen, distribution means, employees in the marketing department etc</i>	3.74	1.11
9	<i>The venture for the enterprise and the degree of uncertainty</i>	3.60	1.36
10	<i>The best production quantity</i>	3.55	1.16
11	<i>Choice among self financing or other financing forms such as borrowing, Leasing etc</i>	3.53	1.21
12	<i>Distribution channels and more specifically the network of intermediaries</i>	3.45	1.23

Table 5. Reflections for the production and disposal of certified timber (Scale of importance 5-1, with 5 =the most important)

From literature review (Stamou, 2005) it appears that the most basic criteria in order to make a decision on certified timber products correlate substantially with the additional profit which Greek enterprises will reap from the materialization of such a decision. They mainly refer to:

- a) The size of the recorded demand of certified timber products
- b) The sufficiency of this size so that will be able to guarantee the change from the traditional enterprising policy to the one of certified products
- c) The positive probability of an increasing demand in the market of certified timber products

d) The expectation of businessman of certified products of timber it has concrete advantages in this market

e) The expectation of better prices of certified timber products against the prices of "traditional" ones

f) the obligatory application of current relative legislation

g) The competitiveness of enterprises in the creation and development of new products, in the case they have to produce and offer both "traditional" and certified products.

THE PROFILE OF ENTERPRISES

Most enterprises (31.7%) declare the trade of products of timber, as their exclusive activity, while only a 14.6% are producers (mainly of particle boards).

In regard to the legal form of enterprises that participated in the present research, the bigger percentage (37.2%) are individual enterprises followed by SAs with a 30.2%, GPs (20,9%), Ltds (7.0%) and Trade Companies (2.3%).

The enterprises occupy roughly a mean of 23.8 employees. Small companies (10-50 employees) comprise the bigger percentage (47.5%), micro firms (<10) the 40.0%, medium ones (51-100) a 10.0% and finally there is a 2.5% with above 100 employees.

In their majority the enterprises are mature and experienced that have been founded before 1990 at a percentage of 63.4%, while an important percentage (22.0%) of them have been founded during the last decay (after 2000).

Finally, with regard to the annual turnover the 38.9% of the enterprises present a turnover of 1.000.000 – 5.000.000 €, the 25.0% a 500.000 – 1.000.000 €, an 11.1% above 5.000.000 €, while there is another 11.1% with less than 100.000 €.

Variables	t-test	Pearson correlation coefficients											
		1	2	3	4	5	6	7	8	9	10	11	12
1. The extent to which the consumers, the conditions of market and the competition allow this development.	30.519	.180											
2. The extent to which the existing productive capabilities of enterprises in mechanical equipment, technical knowledge, building installations etc can cover the new needs	26.559	.100	1.000										
3. The extent to which the existing capabilities of enterprises (salesmen, means of distribution, employees in the department marketing etc) suffice	23.075	.235	.383**	1.000									
4. What will be the variable cost and how much will be overloaded the constant cost, the expenses of disposal, publicity and generally production	24.994	-.058	.111	.361*	1.000								
5. Which is the best quantity of production	21.047	.017	.201	.112	.260	1.000							
6. What are the channels of distribution and specifically the networks of intermediaries	19.208	-.064	.215	.308*	.219	.235	1.000						
7. Raw Materials, brand name, package, size, colour and general appearance of product	25.350	.312*	.148	.168	.095	.385**	.462**	1.000					
8. The price, the guarantees, and the economic benefits such as discounts – if any- that will support the product	27.294	-.082	.327*	.165	.210	.309*	.218	.382**	1.000				
9. The process and the time of replacement of traditional timber with certified	24.091	.210	.102	.107	.208	.145	.269	.281	.004	1.000			
10. The height of new investments	24.381	.005	.267	.370*	.377**	.071	.244	.115	.289	.178	1.000		
11. Choice among self financing or other financing forms such as borrowing, Leasing etc	19.959	-.191	.208	.264	.028	.328*	.187	.196	.160	.037	.239	1.000	
12. The venture for the enterprise and the degree of uncertainty	18.101	.180	.143	.246	.209	.214	.188	.105	-.186	.289*	.213	0.343*	1.000

Table 1: Pearson correlation coefficients of reflections on the production and disposal of certified timber

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

CONCLUSIONS – PROPOSALS

The key findings derived from this study are as follows:

- The Greek enterprises of the timber sector show a great interest in the protection of forests in all the world from illegal loggings and traditional management. This big sensitivity of Greek enterprises appears to create favourable conditions for the promotion of certified timber that comes from sustainable managed forests. Bigger enterprises express relatively a weaker interest in the protection of forests.
- The asked enterprises wish in the overwhelming majority the certification of the sustainable management of Greek forests.
- The asked enterprises believe that the movement of green buildings comes also in Greece but in a slow pace. They forecast that the green consumers are prone to offer an additional price of a 6% roughly in order to buy certified products of timber.
- A particular emphasis in the green marketing should be given in the intense advertising informative movement of consumers and particularly in those that constitute initially the target – market of "green consumers".
- There exists a big confidence in most Institutions of Higher Education (Universities and TEIs) which are considered capable to promote the certified products of timber.
- Publicity is proposed through newspapers, magazines, as well as the Internet, specifically by high visiting portals.
- Finally, companies express fundamental thoughts and problems on the growth of this new timber market mostly referring to the probability of such a development and the role of consumers, market conditions and the competition as well as the price, the guarantees, and the economic benefits that will characterize the product.

The timber market depends directly on the growth of forestry. Synergies are necessary for the sake of the world economy and the protection of environment. It is well established that the certification of forests and products of timber contributes in the protection of environment.

The structured strategy of green marketing can be seen as an antidote in the economic crisis of today and even more afterwards.

The timber sector owes to maintain the quality of products at high levels and to decide composed movements in pricing, so that it maintains its fame and at the same time to be found at a high level of integration when the crisis settles.

The tendency of "green buildings" construction should be supported all over Greece. At the same time motives should be given to certify the Greek forests, which are even today under informal sustainable management.

The realisation and promotion of the above mentioned activities are essential for an effective publicity of certified timber. It requires however the combined actions of the relevant institutions such as confederations, Higher Education Institutions, non governmental organisations, editors, volunteers etc.

With regard to the means of communication and promotion of certified timber, the so - called *social media* could be also more developed, with Facebook groups such as “Green Buildings”, “Forests under sustainable management”, “Use of only Certified Timber Products” etc

Consumers should become aware of their power to contribute in the protection of environment even through the purchase of certified timber. Besides, the timber that is sold and comes from sustainable managed forests offers a lot of profits in many directions.

Literature review has shown that the majority of successful enterprises that trade certified products of timber have incorporated environmental matters in their commercial strategies and in their practices.

The present research could be continued, investigating the intention of Greek consumers to use certified timber from sustainable managed forests, after the diffusion of the findings of the present research.

The state is called to apply a forest policy which will adapt in the global developments and ensure the viability of forest exploitations Policies should also be able to support and strengthen the first steps of enterprises that supply sustainable certified timber.

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INVESTMENT DECISIONS UNDER UNCERTAINTY: RESEARCH TRENDS

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The purpose of this article is to present an overview of the principal trends in the area of taking investment decisions under the conditions of uncertainty. The identified trends of the research are grouped by the hypotheses produced and methodologies employed by the authors in relation to the hypotheses.

Three principal groups of the trends have been identified: a) the school of rational choice theory; b) the school of the irreversibility theory; c) the school employing models of both the rational choice and the irreversibility theory. By using econometric models the rational choice theory arrives at a conclusion that investors would refrain from investing where they envisage a high likelihood of a loss. The impact of uncertainty upon investment is in all cases negative. With the growth of uncertainty investment is shrinking rapidly. The irreversibility theory opposes the rational choice theory by employing empiric methods and concluding a necessity to consider a possibility that part of the investors may never return. Investors in all cases have an option to wait and suspend their investment until updated information becomes available and the situation turns more favourable for investment. Even in the face of a considerable likelihood of a loss investors will not in all cases choose to withdraw from the market. Furthermore, one of the principal theories claim that an increase in uncertainty will not produce an adverse effect upon investment in absolutely all cases. Finally the two trends were merged, complementing the existing models by a fixed cost factor and replacing the time factor by an investment volume factor.

We believe that the present article will encourage further interest in the impact of uncertainty conditions upon investment decisions and will prompt new, previously undiscovered areas of research.

Key words: investment decisions, uncertainty, rational choice theory, irreversibility theory, investment strategy.

INTRODUCTION.

Taking appropriate investment decisions is one of the most important factors for business success, therefore in most business units the process of the search for efficient solutions is a matter of special focus. The search is at times significantly impeded by the ever changing business environment. Few things would remain unchanged over a long term, therefore the decision making process frequently faces a good deal of uncertainty where future changes in business environment or their possible impact upon business cannot be completely projected.

Capital markets are likely to be among the most rapidly changing environments, furthermore, most frequently permeated with uncertainty. Most business entities being part of capital markets are inevitably forced to take investment decisions under uncertainty, therefore such investment decisions are undoubtedly a matter requiring special attention. The aim of the

present article is to explore the process of research of passing investment decisions under uncertainty and the directions of development of such research. The tasks of the article include (a) identification of the principal directions of research in the process of taking investment decisions under uncertainty, and (b) overview of the main aspects of the research and methods selected by the researchers. The research method is based on the classification of the identified research papers (on the subject of passing investment decisions under uncertainty) according to the research areas and methods selected by the authors.

UTILITY THEORY.

Before 1960s the impact of uncertainty upon decision making by consumers and firms was a frequent object of research, however, the role of uncertainty in capital markets or its impact upon an investment decision-making process did not attract sufficient attention of researchers. Most of capital market research has been carried out only under clear-cut and well-defined conditions (Fisher, 1930; Markowitz, 1952; Markowitz, 1959). The first attempts to develop an investment decision model under uncertainty were taken in 1962, when Farrar presented his model on the basis of the classical utility theory. The principal hypothesis claimed that investor choices depend upon the utility curve. The model was compiled using the mathematical programming method (Farrar, 1962)

Similar research methods were subsequently used by Merton. His inquiry into the investment decision making process under uncertainty was carried out in the same plane of macroeconomics, however, differently from Farrar, Merton based his research upon investment, rather than utility theory (Merton, 1977).

RATIONAL CHOICE AND ADJUSTMENT COST THEORIES.

A slightly different route was taken by Hirshleifer who became interested in the subject of investment decision making under uncertainty in the context of the investigation of the factors causing price changes. Having employed the already known game and rational choice theories, as well as the theorem of Modigliani-Miller, he developed a time-state model, based on the statement that uncertainty is changing following the same course as time. Investment for a longer period will mean that an investor will need to develop a long-term strategy.

To design such a strategy is a complex task as long-term strategic decisions are heavily loaded with uncertainty due to insufficient information. The longer the planned period for investment, the larger is the extent to which the shortage of information causes uncertainty that in its own turn is unavoidably related to risk. Therefore a conclusion should be drawn that investment decisions are affected by the degree of tolerated risk or accessible information (Hirshleifer; 1965, 1966). The same *time-state* model was subsequently used to compose the model for the calculation of the liquidity premium (Hirshleifer, 1972), project the equity price changes and determine the influence of the uncertainty factor upon an investor costs (Lucas and Prescott, 1971). Equally as in the case of the utility theory, the presented research most often uses econometric and mathematical-statistical methods. For the purposes of determining the effect of uncertainty upon investment decisions, the latter methods were used for an extensive period of time, as it was believed that empiric methods are not capable of accurately measuring the effect of uncertainty upon investment (von Kalckreuth, 2000). Using the econometric modelling U. von

Kalckreuth attempted to accurately assess the effect on the basis of the case of Germany. His fundamental hypothesis maintains that uncertainty is composed of two parts: (a) sales uncertainty; (b) cost uncertainty. The two uncertainties are equally important in the assessment of the impact upon investment. Uncertainty in all cases has a negative impact upon investment demand. In the event both uncertainty indicators increase by at least 1 percent, the investment demand on average declines by 6.5 percent (von Kalckreuth, 2000).

IRREVERSIBILITY THEORY

The research on the subject of investment decisions under uncertainty was supplemented by the irreversibility theory that opposed the rational choice and the adjustment cost theories. Ordinarily the decision is considered to be irreversible where, once the decision is taken, the choice possibilities in the long period are significantly restricted. For instance, an investor has to decide where to invest the funds owned. The investor then faces two alternatives – first – to invest into equities, or second – into government securities. Where an investor decides to invest into liquid Government securities, the decision will have no irreversibility effect as the investor shall be at any time able to sell the Government securities and use the proceeds to acquire the shares that he had not acquired before. The irreversibility effect arises where no options remain available or at least they are materially restricted, once the decision has been taken. For instance, an investor acquires illiquid equities. Such equities are hardly sellable, therefore, once they are acquired, there seems to be no other optimal solution than to continue holding them. Thus the decision to acquire the illiquid shares is considered to be irreversible. The rational choice theory disregards the decision irreversibility effect and treats all decisions as reversible.

One of the first researchers who started investigating the impact of the “irreversibility effect” upon investment decisions under uncertainty was C. Henry. In the presence of a clear-cut certainty an investor shall be able to accurately assess the situation, and his decision will have an irreversibility effect, which, as a result, facilitates his assessment of the return of all possible alternatives. In the face of uncertainty the investor may find it difficult to assess the possible financial consequences of his decision, or whether he will be able to modify it in the future (Henry, 1974). Differently from the theories discussed earlier, Henry most often uses empiric, rather than mathematic-econometric methods.

The importance of the irreversibility fact has been also acknowledged by Pindyck (1991). Similar to Henry, Pindyck has been criticising econometric models and claimed them entirely inappropriate for research of investor behaviour (specifically under uncertainty). Econometric models fail to provide any explanation for and do not facilitate any more accurate prognostication of the changes in investment costs. Neither do the econometric models provide an answer to the question why certain countries or business sectors invest more than others. It is necessary to consider that most of the costs, according to Pindyck, shall never be recovered. Furthermore, econometric models entirely disregard the fact that investors most often do enjoy a possibility to suspend the investment until they receive additional information about costs, prices, etc. The principal hypothesis is that investment decisions are affected by the possibility to suspend investment under uncertainty in addition to the cost irreversibility effect. The statement that investment into a project is expedient, only provided the future cash flows are larger than the related investment costs is not correct in case the investment costs are irreversible

and where the investment may be suspended. This consideration renders investment specifically susceptible to a range of risks, e.g., uncertainty about future prices and operating costs that define cash flows, also the uncertainty about the future interest rates, investment costs and time (Pindyck, 1991). This hypothesis is based on the research of the irreversibility theory by Ben Bernanke, who concluded that under uncertainty conditions an investor who opts to suspend investment until he receives more information, acquires an advantage against the investor continuing to invest under uncertainty. According to Bernanke, under uncertainty it is much more advantageous to suspend the investment than continue to invest under fear that the project will not be implemented and the idle time will generate excessive loss (Bernanke, 1983). Slightly later Pindyck expanded his theory by producing a hypothesis claiming that uncertainty concerning income and costs affects investment decisions in two different ways: (a) uncertainty may appreciate the assets which will cause the growth of the investment; (b) where the investment is "irreversible" and may be suspended, it is likely that alternative costs will increase, as a result whereof the general investment costs will increase and the value of the assets starts declining (Pindyck, 1993). In this connection the impact of uncertainty was further considered not only upon investment decisions, but also on prices and the determination of companies to enter the market or withdraw from it. A conclusion was arrived at that irreversibility has an impact upon price equilibrium which, in its own turn determines the resolution of companies to enter the market. The analysis of the indicators of American industry allowed a conclusion that where the uncertainty doubles, the required return rate increases by about 20 percent (Caballero and Pindyck, 1996). Nevertheless, in the opinion of some researchers, the relation between uncertainty and investment as established by Caballero and Pindyck is quite loose. In reality this relation is much stronger (Boyle and Guthrie, 2003). Boyle and Guthrie, while referring to the research by Dixit and Pindyck (1994), have produced their original investment timing model which they have supplemented by financial limitations. According to this model, a company has "eternal" rights to invest into a project and prefers to choose a date for its investment to ensure the highest return. Investment shall be accomplished where the value of the project is higher than the costs incurred while waiting. This model is based on the assumption that a company may allocate for the project an unlimited amount of funds, in other words, the financing risk is eliminated. Under the circumstances where the investment period is flexible, it is highly recommended to acquire insurance coverage. Such insurance will enable the company to suspend its investment under unfavourable conditions and help the company avoid losses due to premature involvement in the project. On the basis of this model, a conclusion was produced to the effect that the increase in uncertainty may cause an increase or a decrease of the investment depending on the source of the uncertainty (Boyle and Guthrie, 2003). This, to an extent, contradicts the statement that uncertainty may produce only an adverse effect (von Kalckreuth, 2000).

"ANTI-RATIONAL CHOICE" THEORY.

In the first half of the 20th c. attempts were made to explain most of the decisions by referring to the rational choice theory. Research in economics was dominated by the claims that even under uncertainty decisions are taken following the rationality criteria alone (Neumann and Morgenstern, 1947; Savage, 1951, and others). Referring to the works by Kahneman and Tversky (1979) G.Loomes and R.Sugden criticised the rational choice theory and significantly downgraded its role in decision-making under uncertainty (Loomes and Sugden, 1982). Although neither Loomes nor Sugden ever endeavour to specifically investigate *investment decisions*, they nevertheless were using the works of such researchers as Hirshleifer, Markowitz and others, and employed some of their research methods. These theories were to a large extent similar to those compiled on the basis of econometric methods.

PRICE CHANGE AND ADJUSTMENT COST RESEARCH.

Some 20 years after the first publication of the works of Hirshleifer on investment decisions under uncertainty, the factors causing price changes again become an object of research. Also, there are attempts to assess the impact of accidental price changes upon corporate investment decisions. Researchers get back to the impact of uncertainty upon costs, i.e., there is some revival of the *adjustment cost* theory (Abel, 1983). Abel constructs his model of optimal behaviour under uncertainty using mathematical models. He arrives at a conclusion that an investor behaves in an optimal way where, in view of changing conditions, the behaviour itself remains stable, irrespective of the duration of the investment. This means that even under the recession in the capital markets investors should not jump to any drastic decisions (e.g., start selling all their financial assets). Following an accidental price change, sooner or later there will be a return to the initial situation, thus it is by retaining the assets held that investors will suffer the least possible loss (Abel, 1983). A similar course in his research was followed by Dixit who claimed that under uncertainty and in view of accidental price jumps investors find it complicated to decide on the most appropriate time to enter the market, or to withdraw from it. In the process of investment decision-making under uncertainty Dixit proposes to be guided by the call option model, under which the option price fixing is equated to investment costs and the option premium is the possibility to withdraw from the market with the least loss on the price. In other words the investor purchases a possibility to withdraw in case the conditions turn adverse (Dixit, 1989).

The decision to enter the market or withdraw from it depends upon two factors, i.e., variable costs and the interest on the costs of entering and withdrawal from the market. Where the variable costs with the added entry cost interest are lower than any potential revenues, then it is a favourable moment to start the entry into the market process. A proper moment to withdraw from the market is when variable costs less the withdrawal costs interest are higher than potential income (Dixit, 1989). In his later articles Dixit modified his position to a certain extent and arrived at the conclusion that not in all cases investors will withdraw from the market where prices fall below the variable cost average (Dixit, 1992). In this respect Dixit acquires significant similarity with the hypothesis of the irreversibility theory school claiming that under adverse conditions it is much more rational to stick to a "waiting" strategy, than withdraw from

the market (Henry, 1974; Bernanke, 1983; Pindyck, 1991). Some time later Dixit's research was expanded by developing a new optimal investment strategy under uncertainty. The successful application of this strategy is related to the limit control policy at any time moment. The adjustment costs theory was also supplemented by introducing into the research the replacement costs of an asset by another asset (Eberly and van Mieghem, 1997, Harrison and van Mieghem, 1999).

RATIONAL CHOICE THEORY + IRREVERSIBILITY THEORY.

Finally, a number of research papers appeared demonstrating the attempts to reconcile the game, rational choice and adjustment cost theories with the irreversibility theory, in the underlying research employing both stochastic and deterministic methods (Abel *et al.*, 1996). This novelty of the trend was in its introduction, in the context of the investigation of investment decisions under uncertainty, and of the fixed costs factor. Until that time such decisions were examined only from the viewpoint of variable costs. The classical cost management theory maintains that where the investment costs are equal to a zero, then the investment value shall be equal to a zero too. In this case, however, the fixed costs that also to an extent affect the situation, were disregarded. It is exactly for this reason that the new model was supplemented by fixed costs (Abel and Eberly, 1994).

According to the advocates of this new trend, the optimal investor behaviour normally includes three probable modes: (a) when the investment result is positive; (b) when the investment result is equal to a zero; and (c) when the investment result is negative. Representatives of the game theory, rational choice and cost adjustment theories most often limit their focus upon the first case only being guided by an idea that a prudent investor will not invest in view of a possibility of loss, or the investment return shall be equal to a zero, therefore the examination of all other modes, except the first one is meaningless. The irreversibility theory is slightly more extensive and covers not only the first case under which investors enjoy returns, but also the second mode where the return is equal to a zero. Still, this theory, just like the rational choice theory, does not examine the cases where the investment performance is loss-making (Abel and Eberly, 1994). The game and the irreversibility models were also exploited in some other research exercises. P.Murto and J.Keppo used both models in an attempt to determine how, under uncertainty conditions, a company competes for investment possibilities (projects). What will be the effect upon a company where there being only one investment possibility it is taken by its competitor (Murto and Keppo, 2002).

THE USE OF FINANCIAL INSTRUMENTS UNDER UNCERTAINTY

It has been noticed that all earlier theories were most often pooling their efforts to attempts to prove the impact of uncertainty upon investment decisions and determine the extent of the impact. When referring to specific investment strategies a most frequent solution was to limit oneself to abstract proposals that are hardly applicable in practice, since no specification is provided as to which financial instruments need to be used in order to implement the proposals successfully, i.e., the issue on how, under uncertainty, it is possible to implement the investment strategies developed. Corporate managers find a search for such instruments a challenging task, since in all cases in order to properly use an instrument it is absolutely necessary to objectively

assess the uncertainty conditions. Practical application has shown that uncertainty is most often overestimated or underestimated (Courtney *et al*, 1997). Researchers from the Harvard University, H.Courtney, J. Kirkland and P.Viquerie, distinguished four levels of uncertainty and proposed different financial instruments to manage the investment portfolio under each such level (Courtney, *et al*, 1997).

THE MOST RECENT RESEARCH TRENDS.

Until now, most researchers based their models of investment under uncertainty on the factor of timing (Hirshleifer, 1965; Hirshleifer, 1966; Lucas and Prescott, 1971; Dixit and Pindyck, 1994; Boyle and Guthrie, 2003). The more recent developments show that such models are being developed with reference to the investment volume, rather than the timing factor. Having introduced the factor of investment volume in their research, K.Huisman and P.Kort have arrived at a conclusion that under a low degree of uncertainty leader companies will invest less than companies "followers". In view of the growing uncertainty, the situation reverses as companies "leaders" start investing more than companies "followers". Also it has been established that under a high level of uncertainty the leading companies will not only invest more than smaller companies, they will invest considerably earlier than the latter. Under a lower level of uncertainty the situation will be inverted (Huisman and Kort, 2009). In their research Huisman and Kort, similarly to many other advocates of the game theory employ econometric methods (Huisman *et al.*, 2003; Huisman ir Kort, 2009).

CONCLUSIONS.

The research of the investment decision-making under uncertainty may be categorised into three principal trends: (a) rational choice, game and adjustment cost theories; (b) irreversibility theory, and (c) a joint theory that combines both theoretic models: that of the rational choice and of the irreversibility.

The research of investment decisions under uncertainty started with the use of the rational choice, game and adjustment cost theories (Hirshleifer, 1965, 1966, 1972; Lucas and Prescott, 1971, and others). Until that time the investment decision-making was tested only under "certainty" conditions (Fisher, 1930; Markowitz, 1952; Markowitz 1959). Most models of the school designed to assess the impact of uncertainty upon investment were developed taking into consideration the timing factor. In almost all cases the researchers conclude that uncertainty has upon investment exclusively adverse effect (Hirshleifer, 1965, 1966, 1972; Lucas and Prescott, 1971; von Kalckreuth, 2000 ad others). Researchers were mostly employing econometric methods in belief that empiric will not facilitate any more accurate assessment of the impact of uncertainty upon investment decisions.

Representatives of the irreversibility theory stand as opponents to the rational choice theory, maintaining that econometric methods have failed to produce an accurate answer, since in the examination of the impact of uncertainty upon investment due account must be taken of a possibility that part of investors may never return to the market. In all cases investors have an option to await and suspend their investment until updated information becomes available and the situation turns more favourable for investment. The irreversibility theory, in contrast to the rational choice theory, claims that even in view of a significant likelihood of a loss not in all

cases will investors withdraw from the market. Furthermore, one of the principal theories claim that an increase in uncertainty will not produce an adverse effect upon investment in absolutely all cases. The research by the representatives of this school most often employs empiric methodology (Henry, 1974; Bernanke, 1983; Pindyck, 1991, 1993; Dixit and Pindyck 1994; Caballero and Pindyck, 1996; Boyle and Guthrie, 2003).

Finally, the two trends were streamlined by expanding the existing models with a number of new aspects. For example, some researchers introduced the fixed cost factor (Abel and Eberly, 1994), consideration was given to the effect of competition (Murto and Keppo, 2002), and the investment volume factor was introduced to replace the timing factor (Huisman and Kort, 2009).

Emergence of some new trends in the area can in no way be overruled, as the existing theories have not yet succeeded in addressing all arising problems, in order to comprehensively assess the impact of uncertainty upon investment decisions.

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IMPACT OF GLOBALIZATION ON CELEBRITY ENDORSEMENT IN INDIA

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Globalization has made the world more nearly a single, homogeneous, market place, but there will always be economic, geographic, cultural and technological difference. Standardization and localization are the two **Marketing Communication** strategies used in International Marketing Communication.

PURPOSE: The concept of **Integrated Marketing Communication (IMC)** has added a new dimension in the way companies are trying to connect with their target audience. With brands becoming “**me-too**” in terms of features, quality etc. it became all the more challenging for Indian companies to connect with their target audience.

Every brand is trying to create its own identity in the market and advertisers are trying to figure out and highlight the **Unique Selling Proposition (USP)** of the brand to their target audience in order to create their own identity and thereby gain competitive advantage.

The phenomenon of **Celebrity endorsement** has attracted a lot of attention world wide and in Indian context the situation is no different. **Celebrities** are people who are successful in their own profession, who enjoy public recognition and have huge fan following and media attention. **Celebrities** are occupying huge amount of advertising space and time across different mass media be it print, electronic or outdoor and companies are also spending huge amount of money to sign them for advertising their brands.

The celebrity endorsement started gaining prominence in India since 1980. The opening up of the Indian economy in early 90's paved the way for multinationals to tap the huge Indian market and communication with the **target audience** became all the more challenging for advertisers and their advertising agencies.

APPROACH & OBJECTIVES: This research paper is **focused** at understanding the impact of globalization in Indian advertising context **firstly** in regard to emerging trends noticed in the field of celebrity endorsement in India like **multiple brand endorsement, celebrity overexposure, and celebrity voice over in advertising.**

Secondly exploring the different dimension of **challenges** involved in selecting Indian celebrities for brand endorsement.

Finally suggesting a **guideline** for advertisers and their advertising agencies to hire the right celebrity for brand endorsement in various mass media in a competitive global market situation.

RESEARCH DESIGN: The research **methodology** will comprise of both **primary and secondary research** activities with a sample survey method comprising of a structured questionnaire.

Primary Research is conducted to find out the consumer's response regarding the study objectives discussed earlier.

FINDINGS: Primary data collected during the course of the study is analyzed using simple percentages and '**Q**' **score** of the selected Indian celebrities were found out to determine the **familiarity and popularity** of the selected celebrities among the target audience.

The findings of the research will be of immense benefit to advertiser and their advertising agencies in **hiring the appropriate celebrity** for their brand endorsement in a changing global scenario.

RESEARCH LIMITATIONS: Just as any other research study, this study has got some limitations as mentioned below. The study is conducted with a sample of 100 respondents in Kolkata only and for the study only 10 Indian celebrities (**Hindi Film Stars**) were selected.

SCOPE FOR FURTHER RESEARCH: The study gives a clear direction for **further research** in this aspect of exploring the impact of Globalization on celebrity endorsement phenomenon in India measuring the familiarity and popularity of Indian celebrities in a much broader manner with celebrities from other walks of life and among larger sample size covering much broader geographic area.

PRACTICAL IMPLICATION: In Indian context identifying and selecting the right celebrity for brand endorsement is a challenging issue for advertiser and their advertising agencies as huge amount of money and other resources are at stake.

Gone are those days when celebrities were mostly selected for brand endorsement based on **gut feeling**. In the beginning of the **21st century** companies can no longer rely on gut feeling alone. This paper will bring to light the **challenges** faced by Indian advertisers in selecting Indian celebrities for their brand endorsement. The paper is also aimed at suggesting guideline like **'Q' rating score** and **principle of congruity** to Indian companies in selecting the right celebrity for their brand endorsement to connect with their target audience.

ORIGINALITY & VALUE: This study will provide valuable insight to Indian advertiser and their advertising agencies regarding the familiarity and popularity of the selected celebrities in terms of their **'Q' score** and eventually determine their **ranking**. This may be referred by advertiser before selecting a celebrity for brand endorsement.

Key words: Globalization, Marketing Communication, Celebrity endorsement, Principle of Congruity, 'Q' score.

Category of paper: Research Paper

INTRODUCTION

One of the major developments in the business world during the decade of the 90's was the **Globalization** of markets. The emergence of a largely borderless world has created a new reality for all types of companies.

Products and services developed in one country quickly find their way to other countries where they are finding encouraging acceptance. Consumers around the world wear **Nike** shoes, eat at **McDonald's**, shave with **Gillette** razors, use **Apple** and **Dell** computers, drink Coca-Cola and Pepsi, talk on mobile phones made by **Nokia** and **Motorola** and drive **Ford**, **Honda** etc.

Companies are concentrating on international markets for a number of reasons. Many companies in the **United States and Western Europe** have recognized that their domestic markets offer them limited opportunities for expansion because of slow population growth, saturated markets, intense competition and /or unfavourable marketing environment.

Most European nations are relatively small in size and without going for foreign markets would not have the economies of scale to compete against larger U.S and Japanese counterpart. **Swiss- based Nestle and Netherlands- based Unilever** are the two of world's largest consumer product companies because they have learned the art of marketing their brands to consumers in countries around the world.

Two of the world's major marketers of cellular telephones are from Scandinavian countries. Nokia is based in Finland and Ericsson is located in Sweden. At present companies are also pursuing international markets because of the opportunities they offer for growth and profits.

Globalization has spread its arms far and wide and developing economies like **India** is also touched by it and experiencing its impact.

Survival Mantra under Globalization-

In today's dynamic and intense competitive market situation survival for the fittest is the new mantra. There has been a shift from the traditional concept of "**seller's market**" to the new and emerging concept of "**Buyer's market**".

The customer is the king in today's context and in India both the MNC's and the domestic players are leaving no stone unturned to connect with their target audience.

There has been a radical shift from the traditional promotional mix elements to a new and emerging **Integrated Marketing Communication** concept. The phenomenon of using celebrities in advertisements is creating a lot of noise world over and in our country the situation is no different.

Facts about celebrity endorsement world over-

A **celebrity** is a person who is successful in his/her own profession, widely recognized in a society and have huge fan following and enjoy media attention. It can be said that within a corresponding social group, celebrities generally differ from the social norm and enjoy a high degree of public awareness.

20% of all TV commercial features celebrities. Celebrities are used in advertisement because it is expected that celebrities have "**stopping power**". In other words, they can draw attention of the Target Audience to the advertising message in a much **cluttered media environment**.

Company's think a popular celebrity will favourably influence the target audience's feelings and attitude and purchase behaviour and can enhance the target audience's perception of the product in terms of image and/or performance.

Emergence of Celebrity Endorsement in India-

Celebrity endorsement in India started gaining prominence since 1980's. The introduction of television added a variable effective medium of communication. Celebrities are people who are recognized by a large group of people. Celebrities may convey a broad range of meanings, involving demographic, personality and lifestyle types.

One of the primary goals of advertising is the persuasion of customers, i.e., the active attempt to change or modify consumer's attitude towards brands. In this respect, the credibility of an advertisement plays an important role in convincing the target audience of the attractiveness of the company's brand.

Pursuing a celebrity endorsement strategy enables advertisers to project a credible image in terms of expertise, persuasiveness, trustworthiness, and objectiveness. Marketers have been leveraging celebrity appeal for a long time.

Celebrity Endorsement in Present Scenario-

The dawn of the 21st century saw the phenomenon of celebrity endorsement gaining increasing prominence in our country. Multinationals as well as domestic companies are going the extra yard to sign up leading Hindi Film stars for endorsing their brands.

Today's celebrities in Indian context are especially from **Bollywood (Hindi film industry in Mumbai)** like Mr.Amitabh Bachchan, Mr. Shah Rukh Khan, and Mr.Amir Khan etc.

In recent times, we had the **Shah Rukh-Santro** campaign with the objective of overcoming the hindrance that an unknown **Korean company** (Hyundai Motors) faced in the **Indian market**. The objective was to earn faster brand recognition, association and emotional unity with the target group.

In 2008 Shah Rukh Khan was endorsing 42 brands in 81 creative executions and the duration of his ad presence was a 1,639 hours. Saif Ali Khan was seen endorsing 23 brands and was present for 1252 hours in television advertising.

According to a report by AdEx India, a division of TAM, Media- all TV commercials showing the following celebrities across TV channel in 2008

<i>Indian Celebrities (Hindi Film Stars)</i>	<i>Total time (Hrs)</i>	<i>No. Of Brand Endorsed</i>	<i>Advertiser</i>	<i>Category</i>
<i>Shah Rukh Khan</i>	<i>1639</i>	<i>42</i>	<i>21</i>	<i>26</i>
<i>Priyanka Chopra</i>	<i>1542</i>	<i>18</i>	<i>8</i>	<i>12</i>
<i>Saif Ali Khan</i>	<i>1252</i>	<i>23</i>	<i>11</i>	<i>14</i>
<i>Kareena Kapoor</i>	<i>965</i>	<i>21</i>	<i>8</i>	<i>11</i>
<i>Hrithik Roshan</i>	<i>906</i>	<i>20</i>	<i>12</i>	<i>12</i>
<i>Amir Khan</i>	<i>647</i>	<i>10</i>	<i>5</i>	<i>5</i>
<i>Juhi Chawla</i>	<i>325</i>	<i>17</i>	<i>9</i>	<i>12</i>

(Table1 showing –Number of Brands endorsed by leading Indian celebrities)

Emerging Trends in Celebrity Advertising in India-

The last decade of the 20th century opened the flood gates for multinational companies to explore the vast Indian market with their product and service offerings. The domestic players got to face a stiff competition from their counterparts from abroad.

The following trends are evident in celebrity advertising-

- **Overshadowing the product**-The target audience may focus their attention on the celebrity and may fail to notice the brand. Company should select a celebrity who can attract attention and convince the target audience, yet not overshadow the brand.
- **Overexposure**-In the beginning of the 21st century it is common to see celebrities endorsing more than one brand. **Multiple brand endorsement** is common among Indian celebrities and this often brings to light the concept of celebrity **over exposure**.

- **Celebrity branding** is a type of [branding](#), or [advertising](#), in which a [celebrity](#) uses his or her status in society to promote a product, service or charity. Celebrity branding can take several different forms, from a celebrity simply appearing in advertisements for a product, service or charity, to a celebrity attending PR events, creating his or her own line of products or services, and/or using his or her name as a brand.

At present there has been a trend towards celebrity **voice-overs** in [advertising](#). Some celebrities have distinct voices which are recognizable even when they not present on-screen. **Mr. Amitabh Bachchan** in Indian context is one such example. This is a more subtle way to add celebrity branding to a product or service.

- **Target Audience Receptivity**-In any celebrity endorsement deal proper match of the celebrity with the target audience profile is very essential to establish the right connects with the target audience.
- **Risk to Advertiser**-There has been a lot of instance of leading celebrities getting caught in **controversies** in their personal life. This is an important aspect that needs to be taken in to consideration and moral clause should be implemented to deal with this issue.

Beauty brands and fragrance houses have traditionally aligned themselves to celebrities. Sometimes that association surpasses the endorser's original claim to fame and we see an actress make headlines not for her craft but for her endorsement.

Celebrity endorsement is a costly proposition. It's a subject that never fails to stir debate. Hindi Film Stars earn enormous amount of money through brand endorsements. Most of the leading film stars from **Bollywood** are endorsing not just one but **multiple brands** in different product category.

LITERATURE REVIEW

As per **Atkins and Block (1983)** a research on effectiveness of celebrity endorsement

found that celebrities may be influential because celebrities are viewed as dynamic with both attractive and likeable qualities. In addition to this their name and fame is thought to attract attention to the product or service they are endorsing.

Another study by **Mc.Cracken (1989)** who is the Celebrity Endorser? Cultural Foundations of Endorsement process offer a new approach to celebrity endorsement. He criticized the **source credibility** and **source attractiveness** model and proposed the **meaning transfer model** as an alternative. The findings highlighted how meanings pass from celebrity to product and from product to consumer as per this model. The paper also mentions that according to this model the secret of celebrity endorsement is largely cultural in nature.

A study conducted by **Ohanian and Roobina (1990)** on construction and validation of a scale to measure celebrity endorsers' perceived Expertise, Trust worthiness and Attractiveness aimed at developing a scale for measuring celebrity endorsers' perceived expertise, trustworthiness, and attractiveness. Accepted **psychometric scale-development** procedures were followed which

meticulously tested a large pool of items for their reliability and validity. Further, use of this scale can improve the understanding of how consumers in different situations react to different sources and how source credibility influences purchase intentions.

The study also revealed that since the large sums of money is spent on celebrity advertising, advertisers should use the scale as an integral part of their effectiveness testing and tracking. The scale is simple to use and convenient for large-sample administrations. For segmentation strategies, the wisdom of using a celebrity and the spokesperson's effectiveness for different demographic and psychographic consumer groups can be evaluated by applying this scale.

This concept also has applications beyond the use of celebrity spokespersons: the scale can be applied effectively in choosing the most appropriate "average consumer" as a spokesperson.

Finally, the dimensions of a celebrity endorser's credibility, along with consumer demographics and psychographics, can be used as potential predictors of attitude toward and intention to purchase a specific product.

As per Jagdish Agrawal & Wagner A. Kamakura (1995) a research on "The Economic worth of Celebrity Endorsers": An Event Study Analysis has typically focused on theories explaining how celebrity endorsements influence consumers' attitudes and intentions. The authors assess the impact of celebrity endorsement contracts on the expected profitability of a firm by using event study methodology.

The study also highlighted that Celebrity endorsement has become a prevalent form of advertising in the United States. Despite extensive literature on the effects of celebrity endorsements on consumers' brand attitudes and purchase intentions, little is known about the economic value of these endorsements.

The study revealed that the announcement of a celebrity endorsement contract, is usually widely made known in the business press, and is used as information by market analysts to evaluate the potential profitability of endorsement expenditures, thereby affecting the firm's expected return.

Announcements of 110 celebrity endorsement contracts were analyzed. Findings of the study indicate that, on average, the impact of these announcements on stock returns is positive and suggest that celebrity endorsement contracts are generally viewed as a worthwhile investment in advertising.

A study conducted by **Erdogan (1999)** on Celebrity Endorsement: A Literature Review focused how can companies select and retain the right' celebrity among many competing alternatives, and, simultaneously manage this resource, while avoiding potential pitfalls? This paper seeks to explore variables, which may be considered in any celebrity selection process. The study gave emphasis on '**Q'rating technique**.

This paper has identified factors from the academic literature which may have managerial importance for selecting celebrity endorsers. Notably, effectiveness of celebrity endorser is found to be moderated by several factors in the literature; celebrity attractiveness and credibility, product-celebrity match, message and product type, level of involvement number of endorsements by celebrities, target audience characteristics, and overall meanings (e.g. personality; values, standards) attached to celebrities.

Besides these factors, economic visibility of endorsers, regulative issues, compatibility with overall marketing strategy, and potential risks must be simultaneously also considered.

Mohan K. Menon et al.(2001) study on Celebrity Advertising: An assessment of its relative effectiveness examines difference between advertisement with celebrity and corresponding advertisement with non-celebrities. The paper in order to assess the relative effectiveness of celebrity advertisement, two types of advertising executions, Celebrity versus non-celebrity, were tested across print advertisement for six products: American Express, Apple Computers, Avon Cosmetics, Milk, Pepsi-Cola and Ray Ban Sunglasses. The sample comprised of students at south eastern University. Overall, the results from this study do not support the view that using celebrity advertisement is more believable or effective than non-celebrity advertisement for brands tested in this study.

According to **Sejung Marina Choi et al. (2005)** the study analyzed television commercials featuring celebrities from two different countries-the United States and Korea based on two different cultural dimensions. First **low versus high** context and secondly **individualism versus collectivism**. The findings highlighted that celebrities in the U.S advertisement's often **portrayed themselves** (i.e. they served as spokes person), while the majority of Korean celebrities acted in roles. Another interesting finding of the study was that many Korean celebrities appeared to promote more than one brand.

Based on the review of literature it was evident that some research works on celebrity endorsement have been carried out in the United States and other western countries. The impact of **Globalization** on celebrity endorsement in India was selected as an interesting area that could be explored and emerging trend in celebrity advertising may be identified.

Moreover, most of the studies conducted so far focused on certain specific areas thus providing the scope for this aspect of determining the **familiarity and popularity** of Indian celebrities(Hindi Film Stars) by applying the '**Q**' score technique.

It is clearly evident from **previous research works** in the field of celebrity endorsement that applying the '**Q**' score technique to determine the familiarity and popularity of Indian celebrities based on feedback from the respondent from different demographic background will be very relevant and useful for companies and their advertising agencies under the present context of Globalization of markets.

SCOPE AND SIGNIFICANCE OF THE STUDY-

The phenomenon of celebrity endorsement is assuming increasing importance world wide. During the course of review of literature it was clearly evident that there is ample **scope** of exploring this issue in India with Indian celebrities (especially with **Hindi Film Stars** from **Bollywood**). In India celebrity endorsement is becoming very popular and companies are also trying to rope in leading Hindi Film Stars for endorsing their brands. The study is aimed at understanding the impact of globalization and emerging trends noticed in case of celebrity endorsement.

The **significance** of this study lies in the fact that it is aimed at determining the **challenges** faced by advertisers in selecting a celebrity for brand endorsement and providing guidelines to them (technique that may be adopted) to help select the right celebrity because huge amount of money and other resources are at stake.

The business performance of company's using celebrities in their advertising campaign to a great extent rest on selecting the right celebrity to connect with their target audience.

The **findings** of the study will definitely bring to light the ranking of the celebrities and their 'Q' score (based on familiarity & popularity), which will be of immense use to companies and their advertising agencies for identifying the right celebrities for endorsing their brands.

RESEARCH OBJECTIVES

This research paper is **focused** at understanding the impact of globalization in Indian advertising context –

- **Firstly** in regard to emerging trends noticed in the field of celebrity endorsement in India like **multiple brand endorsement, celebrity overexposure, and celebrity voice over in advertising.**
- **Secondly** exploring the different dimension of **challenges** involved in selecting Indian celebrities for brand endorsement.
- Finally suggesting a **guideline** for advertisers and their advertising agencies to hire the right celebrity for brand endorsement in various mass media in a competitive global market situation.

CELEBRITY SELECTION –THE INHERENT CHALLENGES.

Selecting the right and appropriate celebrity for brand endorsement is really a challenging proposition. The various **dimensions of challenges** faced by the advertiser and their advertising agencies regarding celebrity selection may encompass the following aspects-

- Celebrity's fit with the brand image
- Celebrity Target Audience match
- Celebrity's **familiarity** among the Target audience
- Celebrity's **popularity** among Target audience
- Cost associated with getting a celebrity
- Celebrity credibility
- Physical attractiveness
- Celebrity endorsing Multiple Brands.

Using celebrity for brand endorsement is a costly proposition as these celebrities as endorsement fees charge huge amount of money. There are positive as well as negative aspects involved.

Talking about the positives it can be said that Celebrities are used in advertisement because it is expected that celebrities have “**stopping power**”. In other words, they can draw attention of the Target Audience to the advertising message in a much cluttered media environment. If celebrities get caught in controversies in their personal life then it might have an adverse effect among the target audience about the image of the celebrity.

Keeping the study objectives in mind this research paper tries to address the challenges encountered by advertisers in **selecting the appropriate celebrity** for brand endorsement. The techniques presented below will act as a guideline for advertiser in selecting the right celebrity for their brand endorsement in present global marketing environment.

‘Q’ SCORE Technique-

The phenomenon of celebrity endorsement is spreading across the globe in a big way. Many marketers believe strongly in the value of celebrity in touching people and hence the amount of money paid to them continues to escalate. Companies are looking to hire celebrities who will attract viewers’ attention and enhance the image of the company or brand.

The question of selecting the right celebrity for endorsement has attracted lot of attention world wide. Some companies rely on the **instinct and gut feeling** of their executives whereas others turn to research findings that measures a celebrity’s appeal as well as other factors that will provide valuable insight into his or her warmth, trust and credibility among the target audience.

‘Q’ SCORE – To help choose the right Celebrity endorser.

‘Q’ Score is normally used by companies to select the right celebrity for endorsing their brand and finding the ranking of the celebrity as per the consumers’ response.

The ‘Q’ score answers the question “how appealing is the person among those who do know him or her?” To help select the right celebrity endorser many companies and their ad agencies can rely on “Q” rating that are calculated by conducting surveys among the respondents.

The respondents are asked to indicate two things **firstly** – Whether they have seen /heard about the selected celebrities? **Secondly**, If yes- then the respondents are asked to rate the celebrities on a scale that includes-One of my Favourite, Very Good, Good, Fair, or Poor.

What does ‘Q’ rating indicate?

- The **Familiarity** score indicates the percentage of people who have heard of the celebrity.
- While “ONE OF MY FAVOURITE” score is an absolute measure of the appeal or **popularity** of the celebrity.

Calculating ‘Q’ ratings-

‘Q’ rating is calculated by taking the percentage of respondents who indicate that a celebrity is “ONE OF MY FAVOURITE” and dividing that number by the percentage of respondents who indicate that they have heard of that person.

'Q' ratings are also broken down on the basis of various demographic parameters such as respondent's age, income, occupation, education and gender. This will give a clear idea to different companies and their advertising agencies about how a celebrity's popularity varies among different groups of consumers.

This study focuses on finding the 'Q' score of Indian celebrities among respondent belonging to different demographic profile.

PRINCIPLE OF CONGRUITY – An important consideration.

A state of "**Congruity**" is said to exist when a target audience has a positive attitude towards a source (celebrity) and a message or a negative attitude towards both.

How ever in real life situation it is often seen that the target audience may hold one attitude towards the **source** (celebrity) and opposite attitude towards the **message**. If a person hears likable celebrity praise a brand that he/she dislikes then the person will either respect the **celebrity** somewhat less or respect the **brand** somewhat more.

If the same celebrity is found to be endorsing other brands, which that person dislikes, then he/she will develop a negative view of the celebrity and maintains a negative attitude towards the brand.

The "**Principle of Congruity**" bring to light the fact that celebrity can use their image to reduce some negative feelings towards a brand but loose some esteem with their Target Audience.

The **techniques and concepts** discussed, if given due consideration will be very handy to advertiser and advertising agencies in their effort to select the right celebrity for their brand endorsement.

RESEARCH DESIGN

Exploratory study is conducted to get clarity of the objective by interacting with the respondents. Huge amount of money is spend on celebrity endorsement to reach the target audience belonging to different demographic profile therefore it is very important to find out the familiarity and popularity of the selected celebrities among the respondent.

First phase - Finding the **awareness and familiarity** of the 10 celebrities among different respondent group such as Students, Teachers, Business Men Housewife and respondent belonging to other occupations.

Second phase -In the second phase the **popularity** of the selected celebrities among the different respondent group was studied and with that overall ranking of the 10 celebrities were found out using 'Q' score technique.

Based on the study objectives mentioned above the research methodology comprised of both Primary Research and Secondary Research activities as mentioned below-

Secondary Research

A list of 10 Film Stars is prepared from the Hindi Film Industry in Mumbai who are endorsing multiple brands at present for the purpose of the study. Hindi Film Stars are selected for the study because of their huge **popularity and fan following** throughout the country.

After formulating the research problem, next the research design was framed. A research design is the conceptual structure within which the research is to be conducted- it deals with the collection, measurement and analysis of data.

Sample Design

Primary Research is conducted to find out the consumer's response regarding the study objectives discussed earlier.

Sample Size- A Sample size of 100 individuals, both **male** and **female** in the age group between 18-45 years belonging to different category such as **Students, Teacher, Businessmen, Housewife etc.** is considered.

Sampling Type- Judgmental and Convenience sampling is done to select the respondents.

Data Collection

Data is collected by **Personal Interview Method** from the respondent in **Kolkata**.

Research Instrument used for the study was a structured **Questionnaire**.

Data analysis and Interpretation – Primary data collected during the course of the study is analyzed using simple percentages and '**Q**' **score** of the selected celebrities were found out to determine the familiarity and popularity of the selected celebrities.

FINDINGS

From the research study it is **first** evident that the impact of **Globalization and Liberalization** in India have brought to light the **emerging trends** in celebrity endorsement like "**multiple brand endorsement**" by Indian celebrities. In this regard it deserve mention that leading Hindi movie stars from Bollywood (Mumbai) like **Mr. Shah Rukh Khan** is endorsing 42 brands, **Mr. Hrithik Roshan** is endorsing 20 brands Ms. Juhi Chawla is endorsing 17 brands and Mr. Amir Khan is endorsing 10 brands followed by others.

The findings regarding the **second** study objective, dealing with the **challenging dimension** in regard to celebrity selection for brand endorsement is addressed by undertaking a sample survey in Kolkata to determine the most familiar and popular Indian celebrities.

The **study objective** relating to the **familiarity** of the celebrity among the respondents shows that all the **Hindi Film Stars** from Bollywood have 100% familiarity among the respondents. (Table 2)

Findings' regarding the **study objective** relating to **popularity** of the celebrities among the respondents shows that among all the **Hindi Film Stars Amitabh Bachchan** and **Shah Rukh Khan** both are having the maximum popularity (47%) followed by Amir Khan (41%), Rani Mukherjee (38%), Hrithik Roshan (33%), Salman Khan (20%), Aishwarya Rai Bachchan (19%),

Preeti Zinta (17%), Juhi Chawla (12%) and Saif Ali Khan (11%) is having the least popularity among the film stars.(Table 3)

In order to deal with the challenges inherent in selecting the appropriate celebrity for brand endorsement The “Q” score technique and the concept of “principle of congruity” should be given due consideration by the advertisers.

Findings regarding the **final study objective** clearly bring to light the ‘Q’ score of the **10 Indian Celebrities**. Among all the selected celebrities **Amitabh Bachchan and Shah Rukh Khan** are both having the **highest ‘Q’ score (47)** followed by **Amir Khan (41), Rani Mukherjee (38)** etc. (Table 4)

Finally based on the ‘Q’ score overall **ranking** of the 10 celebrities is done and **Amitabh Bachchan and Shah Rukh Khan** emerged as the top most celebrity (**rank1**) followed by Amir Khan (rank 3) and Rani Mukherjee in 4th place and Saif Ali Khan is having the lowest rank.(Table 5) . **The findings will be useful for advertisers to hire the appropriate celebrity for their brand endorsement.**

<i>Sr.No</i>	<i>Celebrities(Name)</i>	<i>Number of Respondent Familiar</i>	<i>Percentage (%)</i>
1	<i>Amitabh Bachchan</i>	100	100
2	<i>Shah Rukh Khan</i>	100	100
3	<i>Amir khan</i>	100	100
4	<i>Salman Khan</i>	100	100
5	<i>Hrithik Roshan</i>	100	100
6	<i>Saif Ali Khan</i>	100	100
7	<i>Rani Mukherjee</i>	100	100
8	<i>Preeti Zinta</i>	100	100
9	<i>Juhi Chawla</i>	100	100
10	<i>Aishwarya Rai Bachchan</i>	100	100

Table 2 Familiarity score of celebrities (among 100 respondents)

<i>Sr.No</i>	<i>Celebrities(Name)</i>	<i>Number of Respondent</i>	<i>Percentage (%)</i>
1	<i>Amitabh Bachchan</i>	47	47
2	<i>Shah Rukh Khan</i>	47	47
3	<i>Amir khan</i>	41	41
4	<i>Salman Khan</i>	20	20
5	<i>Hrithik Roshan</i>	33	33
6	<i>Saif Ali Khan</i>	11	11
7	<i>Rani Mukherjee</i>	38	38
8	<i>Preeti Zinta</i>	17	17
9	<i>Juhi Chawla</i>	12	12
10	<i>Aishwarya Rai Bachchan</i>	19	19

Table 3 Popularity score of celebrities (among 100 respondents)

Sr.No	Celebrities	Familiarity Score	Familiarity Percentage (%)	Popularity score	Popularity Percentage (%)	'Q' Score
1	Amitabh Bachchan	100	100	47	47	47
2	Shah Rukh Khan	100	100	47	47	47
3	Amir khan	100	100	41	41	41
4	Salman Khan	100	100	20	20	20
5	Hrithik Roshan	100	100	33	33	33
6	Saif Ali Khan	100	100	11	11	11
7	Rani Mukherjee	100	100	38	38	38
8	Preeti Zinta	100	100	17	17	17
9	Juhi Chawla	100	100	12	12	12
10	Aishwarya Rai Bachchan	100	100	19	19	19

Table 4 showing the familiarity score, popularity score & 'Q' score of the celebrities (Total number of respondents 100)

Celebrities	'Q' Score	Ranking
Amitabh Bachchan	47	1
Shah Rukh Khan	47	1
Amir khan	41	3
Rani Mukherjee	38	4
Hrithik Roshan	33	5
Salman Khan	20	6
Aishwarya Rai Bachchan	19	7
Preeti Zinta	17	8
Juhi Chawla	12	9
Saif Ali Khan	11	10

Table 5 (Showing the Ranking of the celebrities based on their 'Q' Score)

LIMITATION & SCOPE FOR FURTHER RESEARCH-

It was an attempt to understand the impact of **Globalization** in a developing economy like **India** specific to **celebrity endorsement phenomenon**. The research paper tried to cover the theoretical aspect about the emerging trends noticed in celebrity advertising in India and also present the findings of an empirical study undertaken in Kolkata among respondents of different demographic profile. The study is conducted with a sample of 100 respondents in Kolkata only and for the study only 10 Indian celebrities (**Hindi Film Stars**) were selected.

The study gives a clear direction for **further research** in this aspect of exploring the impact of Globalization on celebrity endorsement in India and determining the familiarity and popularity of Indian celebrities in a much broader manner with celebrities from other walks of life (not just Hindi Film Stars) and among larger sample size covering much broader geographic area.

THEORETICAL AND PRACTICAL IMPLICATION

The existing literature reviewed on celebrity endorsement phenomenon focuses on tackling this challenging issue in the **United States** and other Western countries from different aspect by highlighting the “**source credibility model**”, “**meaning transfer model**”, measuring the “**economic worth of celebrity endorser**”, and exploring the “**cultural dimension in celebrity endorsement**”.

Our research paper is aimed at contributing to the existing body of theoretical knowledge by exploring the impact of **Globalization** on celebrity endorsement in a developing economy like **India**. It tries to highlight the emerging trends noticed in celebrity endorsement in India and challenges faced by advertisers in India to successfully connect their brand to their target audience. The paper also tries to provide a **guideline** in selecting the right celebrity based on “Q” score technique based on an empirical research findings.

The **practical relevance** of this paper lies in the fact that advertisers and their advertising agencies in India may take note of the technique suggested in the paper while thinking of connecting their brands with the target audience using Indian celebrities. The findings that emerged from the research clearly shows the familiarity and popularity of the ten selected celebrities based on the respondents feedback coming from diverse demographic background.

CONCLUSION

In the beginning of the 21st century the impact of Globalization is felt in developed and developing countries world over. This research paper was conceived with two broad dimensions in mind.

First part dealt with understanding the impact of Globalization on celebrity endorsement in India with respect to emerging trends noticed like multiple brand endorsement by celebrities, celebrity voice over in advertising etc.

The **second part** identified the challenges faced by advertisers and their advertising agencies in their attempt to use celebrities to connect their brand with their target audience.

Finally **empirical research** was undertaken with 10 Indian celebrities (Hindi Film Stars from Bollywood, Mumbai) among a selected sample to determine the **familiarity and popularity** of

Indian celebrities because they are endorsing different brands and occupying huge amount of advertising space and time across different mass media.

The findings that emerged from the study throw a lot of light regarding the **familiarity and popularity** of the celebrities among respondents belonging to different demographic profile.

Mr. Amitabh Bachchan & Mr. Shah Rukh Khan emerged as the most popular celebrities with the highest "Q" score and **Saif Ali Khan** is rated as the least preferred celebrity having the lowest "Q" score.

The study also gives a clear indication to leading companies and their advertising agencies regarding the '**Q**' score of the 10 selected celebrities and their **ranking** which can be used as a **guideline** to select the appropriate celebrity for endorsing their brand to reach their target audience in today's Global market place..

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APPENDIX (A)

<i>Variable</i>	<i>Number</i>
<u><i>Gender</i></u>	
<i>Male</i>	50
<i>Female</i>	<u>50</u>
<i>Total</i>	100
<u><i>Age(years)</i></u>	
18-25	
26-35	
36-45	
<i>Total</i>	100
<u><i>Monthly House hold Income(Rs.)</i></u>	
<i>Less than 5000</i>	
<i>5001-15,000</i>	
<i>15,001-25,000</i>	
<i>Above25,000</i>	
<i>Total</i>	100
<u><i>Occupation</i></u>	
<i>Teacher</i>	
<i>Men</i>	
<i>House wife</i>	
<i>Others</i>	
<i>Total</i>	<u>20</u>
<i>Students</i>	40
<i>Business</i>	20
	10
	10
	100

Table A: Sample Profile of respondent

APPENDIX (B)

Copy of the research instrument for calculating the 'Q' Score-

Q1 Have you heard or seen the following Celebrities?

If Yes,

Q2 Please rate the celebrities (Tick any one of the five)

<i>Name of the Celebrities</i>	<i>Yes/No (Q1)</i>	<i>One of my Favourite</i>	<i>Very Good</i>	<i>Good</i>	<i>Fair</i>	<i>Poor</i>	<i>Remarks</i>
<i>Amitabh Bachchan</i>							
<i>Shah Rukh Khan</i>							
<i>Amir khan</i>							
<i>Salman Khan</i>							
<i>Hrithik Roshan</i>							
<i>Saif Ali Khan</i>							
<i>Rani Mukherjee</i>							
<i>Preeti Zinta</i>							
<i>Juhi Chawla</i>							
<i>Aishwarya Rai Bachchan</i>							

Name

Gender

Male

Female

Age (years)

(18-25)

(26-35)

(36-45)

Occupation- Students

Teacher

Business Men

House wife

Others

Income (per month/Rs.)

Less than5000

5001-15,000

15,001-25,000

above25,000

Education

Up to Class X

Class XII

Graduation

PG

Ph.D.

BUSINESS ASSOCIATIONS AND SOCIAL CAPITAL

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Key words: associations – social capital – social network

INTRODUCTION

Cooperation and collaboration among firms is not a new phenomenon. Within the current competitive environment, it is widely recognized the distinctive role played by inter-firm cooperation (Anand, Khanna, 2000). The network literature – although confusing for the heterogeneity of the level of analysis implemented, the kind of relational properties studied and the particular techniques carried out – seems to agree on the relevance of socio-economic and strategic-organizational factors in the constitution of different forms of collaboration (Contractor & Lorange, 2002). Starting from this awareness, our work aims at exploring the role of business associations in stimulating collaborative attitudes. Specifically, business associations are viewed as one of the possible motivations that account for the adoption of collaborative behaviours among their members. Aiming at understanding the value of being inserted within an association network for its members, our study presents a results of research project on 797 firms associated to Confindustria Salerno, one of 103 Territorial Business Associations of the Confederation of Italian Industry (Confindustria).

THEORETICAL BACKGROUND

Inter-firm cooperation is a very heterogeneous phenomenon which needs some semantic specifications. In our work, we will adopt a broad definition of collaborations which sees them as a result of a wide range of motives and goals, taking a wide spectrum of different forms and extending from horizontal to vertical boundaries (Gulati, 1998, p. 293). Following this perspective, cooperation might comprehend both short term contracts and complete mergers. It can be properly seen as a continuum where the 2 sides are represented by short term contracts and mergers, being able to assume disparate intermediate forms, as shown in figure 1 (Contractor, Lorange, 2002, p.486).

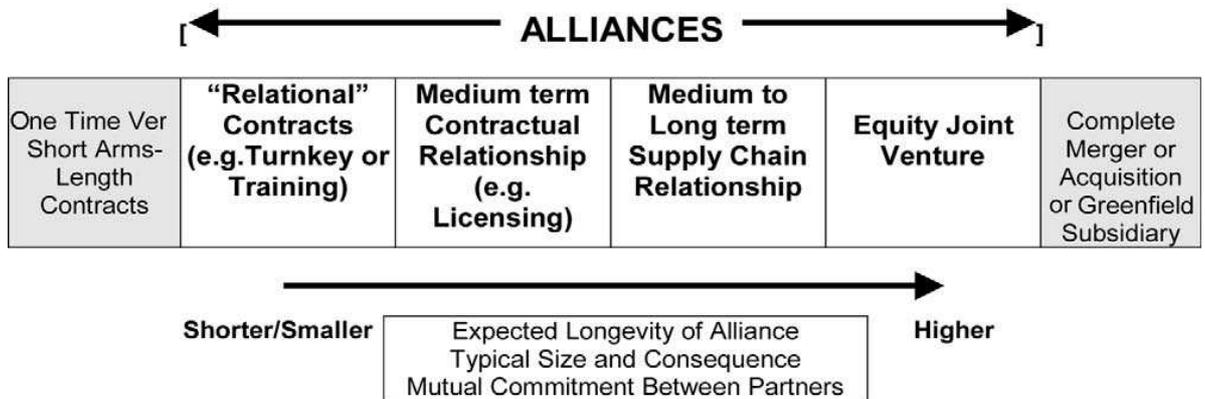


Fig. 1 - Alliances types. Source: Contractor, Lorange (2002, p.486)

Prior research on cooperation have highlighted disparate motivations that can lead firms to cooperate. Two broad class of explanations have been offered to explain the formation of inter-firm linkages.

One set of explanations has focused on the strategic and resource need of firms. Following this perspective firms form inter-organizational ties in order to obtain access to needed assets (Hagedoor and Schakenraad, 1990; Harrigan, 1988; Nohria and Garcia- Pont, 1991); learn new skills or acquire tacit knowledge (Baum, Calabrese, and Silverman, 2000; Hennart, 1988; Kogut, 1988; Doz, Hamel, and Prahalad, 1989; Hamel, 1991; Powell, Kogut, and Smith-Doerr, 1996); manage their dependence upon other firms (Pfeffer and Salancik, 1978).

A second set of explanations calls for a more contextualised approach to traditional strategic problems and ask for the acknowledgement of the role played by social relations in economic dynamics (Granovetter, 1985). According to this perspective, the collaborative attitude is stimulated by the social context in which one is involved and the particular position occupied in the prior network (Gulati, 1995; 1999; Gulati and Gargiulo, 1999; Walker, Kogut, and Shan, 1997).

This study proposes a framework to explain the formation of inter-firm cooperation within a rich social context. The social context examined is represented by the relationships that firms have with the business association. Such a context do has effect on a firm's action (Granovetter, 1985). The social context of a business association network constraints and shapes a firm's action with regard to alliance formation and partner selection which in turn determines its position in the network (Gulati, 1995, Ahuja, 2000). These prior ties, both direct and indirect, create a social network in which most firms are embedded, and it becomes an important source of information for them about the reliability and capabilities of their current and potential partners. Not only, it also gives to firms the opportunity to meet and get to know. Such a context helps firms to learn about new tie opportunities and also enhances their trust in current and potential partners. Information can be a salient catalyst for alliances, which may have significant risks associated with them. By providing conduits for valuable information, business associations may play an important role in shaping future alliance formation.

In this sense, a business association might play the role of broker, having an embedded ties with firms between them unconnected and act as "go-between". The role of a business

association might be that of establish trustworthiness between the two unconnected actors. The process develops through a transfer of expectations of behavior from the prior embedded relations to the new one (Uzzi, 1997, p. 679). In this way, are the actors already involved in embedded ties who facilitate the birth of other embedded ties among their contacts, transferring to them behavioral norms and values, trust, reciprocity, opportunities (Capaldo, 2004, p. 81).

Put another way, the presence of a business association intensify the relationships among its members so making possible the creation of a social network of associates.

This business association network might mobilise social resources via the particular kind of relationships activated within it. That is to say that this network might have a distinctive role in leveraging social capital.

The literature has been vague about what social capital is. A prior research on network studies (Delli Paoli, 2009) has offered a more delimited definition of social capital, both from a theoretical and empirical point of view. In such a research, a content analysis was carried out on 185 scientific articles coming from a set of selected high-rated journals. In order to create a typology of these studies a procedure of multiple correspondence analysis in conjunction with cluster analysis was implemented. The result of the procedure is shown in figure 2.

The clusters so obtained have been interpreted as specific dimensions of the umbrella concept of social capital. Following this perspective, social capital could be seen as a general concept which includes a governance, a structural, a relational, a positional and an expressive dimensions. Put more specific, the sources of social capital are particular tie properties, tie content, specific structure or positions within them. The direct effects of social capital are represented by informational, control, governance, expressive and positional advantages. In table 1, is provided a conceptual synthesis of the operational and theoretical focus of each cluster.

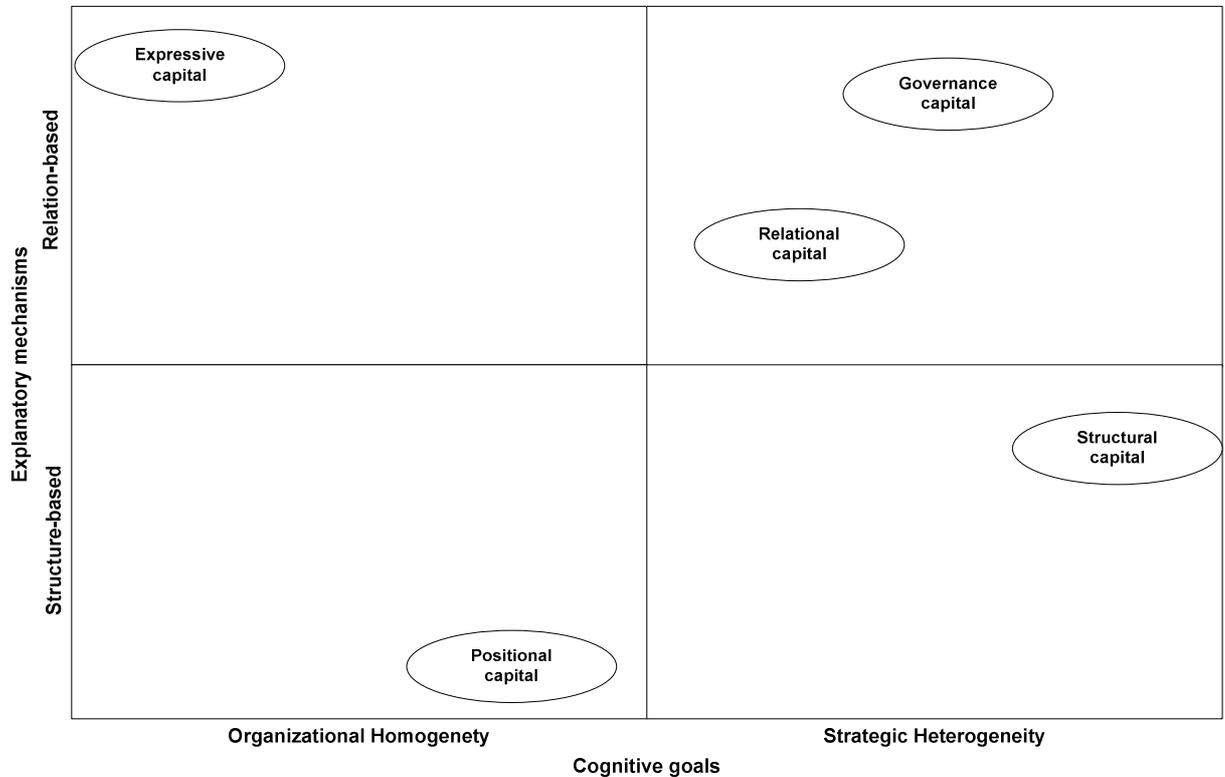


Fig. 2 - The 5 dimensions of social capital. Source: Delli Paoli, 2009, p. 141

Cluster	Operational focus	Theoretical perspective
Positional capital	Structural equivalence	Capital conferred by similarity in a relational space.
Structural capital	Structural holes – centrality	Idiosyncratic capital which derives from efficient network structures.
Governance capital	Ties' social content – density	Expectational capital which provides social mechanisms of control.
Relational capital	Tie's strength – frequency – direction – multiplexity	Capital provided by formal properties of ties.
Expressive capital	Ties' identity content	Capital which provides the degree of consensus, status recognition and identification.

Tab. 1 - A conceptual synthesis of the 5 clusters. Source: Delli Paoli, 2009, p. 142

RESEARCH METHOD

The study presents as unit of analysis the firms associated to Confindustria Salerno, one of 103 Territorial Business Associations of the Confederation of Italian Industry (Confindustria). Founded in 1910, Confindustria represents the interests of Italian companies to leading political and administrative institutions, including parliament, the government, trade unions and other

social partners; it is the main organisation representing Italian manufacturing and services companies; a total of 126.590 companies of all sizes - employing a total of 4.771.000 employees - are voluntary members of the organisation. Companies can become members of the Confederation through territorial associations or sector associations and regional federations that are Confindustria members. The organisations associated to Confindustria (Direct members) are 253:

- 103 Territorial Associations: consisting of companies established in the same provincial area, from different production sectors;
- 99 Sector Associations: consisting of companies from all over Italy that operate in similar and related production activities;
- 18 Regional Confindutria branches: consisting only of territorial associations located in the same region;
- 18 Sector Federations: consisting of sector associations, directly or indirectly affiliated with Confindustria, with a shared mission of dealing with common problems or interests (economic, technical/production, trade union and employment related, market and promotional);
- 3 special aim federations: formed by trade associations to achieve a common goal or roll out a project in special areas;
- 15 associate members (related sectors – fewer rights and duties).

The study was carried out on the total number of firms associated to Confindustria Salerno (797 firms). Members of firms were approached by means of a questionnaire – prevalently made of close-ended questions – sent to them by ordinary or electronic mail; 180 of these firms answered to our questionnaire.

The questionnaire contained questions about the respondents' ties to the other actors. In our case, actors are collective entities (firms) but an individual person representing the firms reports on the collective's ties. The technique used to collect data is known as *free recall*. In other words, on the questionnaire was not reported to the respondent a complete list of the actors in the network. In addition, there was no constrain on the number of firms that an individual respondent could choose. In fact, presenting with a complete list of the actors in the actor set would have produced a very long list of 797 firms which would be meaningless and impossible to read for the respondents¹⁹⁹.

As you can see from the concept map provided in figure 3, our questionnaire was articulated into an informational and a relational dimensions. The former is concerned with contextual

¹⁹⁹ There are 3 different techniques that can be used in a questionnaire:

- 1) Roster vs free recall;
- 2) free vs fixed choice;
- 3) rating vs complete rankings.

For a comprehensive view of these different question formats see Wasserman, Faust (1994, pp. 45-49)

variables such as year of registration in the association and firms' industry. The latter is divided into 2 parts: the first concerns with the quality, frequency and intensity of the associates' relationships with the business association (Confindustria Salerno), the second is related to the ties among firms associated, the identification of these firms, the frequency, intensity and degree of trust invested in these linkages.

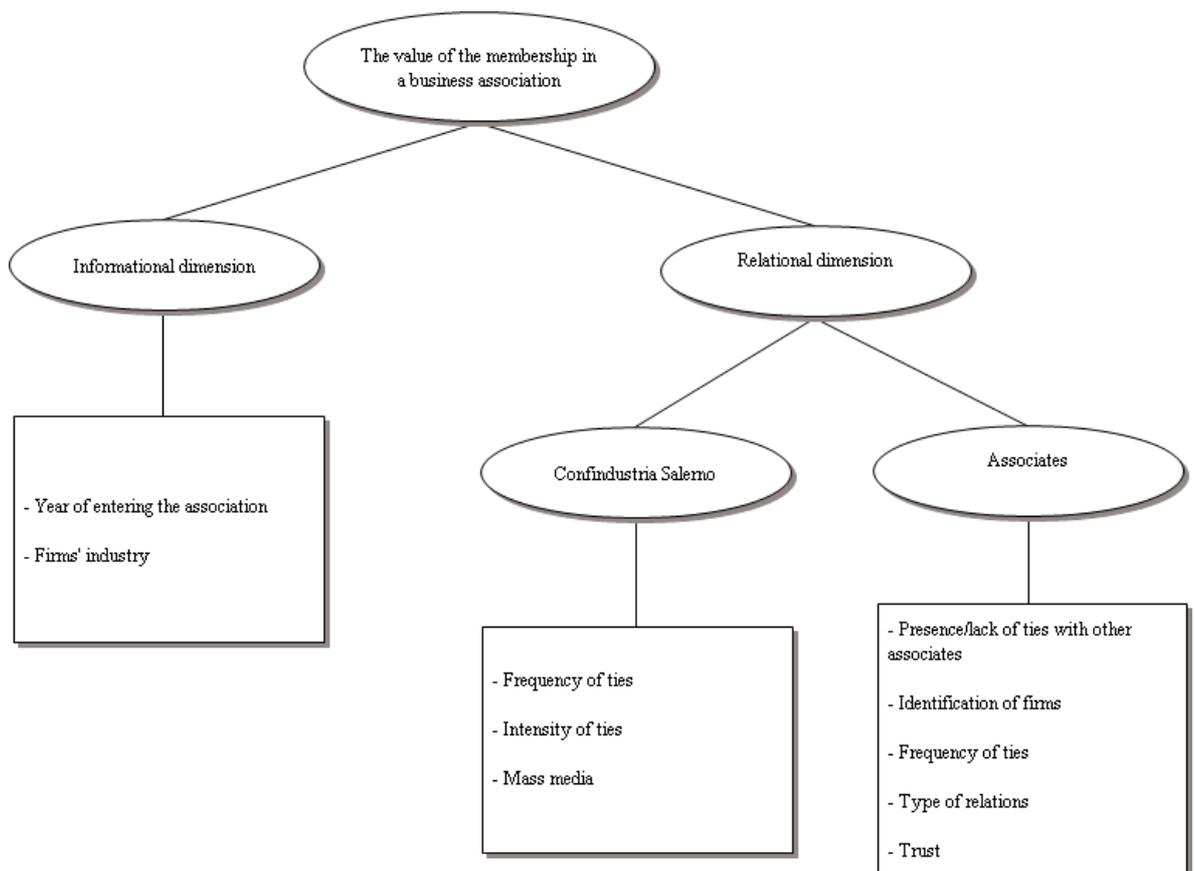


Fig. 3 - Concept map

Our exploratory study was carried through a mixed procedure. First, we implemented a descriptive analysis of our data using conventional methods. Second, we used a sociomatrix in order to reconstruct the relational texture of our network. We applied social network techniques with the aid of Ucinet 6.

The study proposed here is just a first step in the direction proposed, an indispensable step to have a preliminary idea of the relational effects caused by the affiliation. Here, we present the result of a pilot study aimed at detecting the potential association between having an active relation with the business association and the development of other relations with its members, and exploring the structural architecture of this network. The study represents the basis on which can be built a future investigation. In other word, at this stage, we propose an attempt to

evaluate the existence of links among associates and to map their architecture in order to develop some theoretical hypothesis which will be tested by a following study.

RESULTS

We first checked for the potential association between the participation in the association life and the collaborative attitude of associates.

The participation in the association life was measured through the participation to the different kind of events organized by the association and the frequency of their exchanges with the association. In other words, by using these two variables we have combined their categories, so building a typology of relations with the association which shows 3 categories: lack of relation, irregular relations, continuous relations. The result is shown in figure 4.

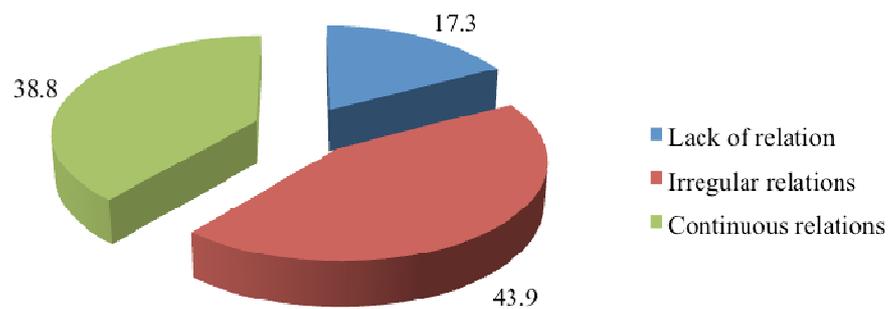


Fig. 4 – The typology of relations with the Association

A cross tabulation between this typology and the variable which measures the presence of linkages to other firms affiliated to Confindustria signals an association between a continuous relation with the association and the presence of ties to other members. As shown in table 2, the percentage of firms who declares themselves to have ties to other firms rises from 52,9% among those who have almost no relation with the association to 89,5% of those who have a continuous relation with it.

	No	Yes	Total
Lack of relation	47,1	52,9	100,0
Irregular relations	23,4	76,5	100,0
Continuous relations	10,5	89,5	100,0
Total	22,4	77,6	100,0

Tab. 2 – Typology of relations with the association * Relations with other associates (Row Percentage)

As further step, we tried to make operational the strength of relations among associates crossing the frequency of ties and the degree of trust invested in them. We obtained another typology which at this time synthesises the strength of linkages to other firms into 3 categories: weak, intermediate, strong.

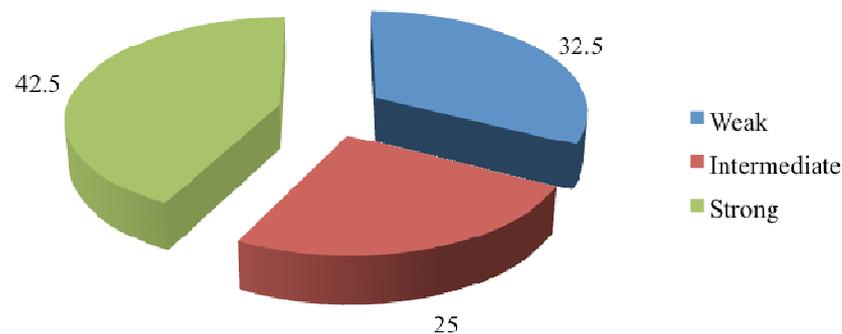


Fig. 5 - The strength of ties among associates

By cross tabulating this typology with the typology of relations with the association (tab. 3) we note that those firms who have an irregular relation with Confindustria keep up a weak relation with other associates (63,6% vs 33,8% of the sample). On the contrary, those who show a continuous relation with Confindustria seem to have strong linkages to other firms (67,7% vs 41,6% of the sample).

	<i>Lack of relation</i>	<i>Irregular relations</i>	<i>Continuous relations</i>	<i>Total</i>
<i>Weak</i>	63,6	40,0	16,1	33,8
<i>Intermediate</i>	9,1	37,1	16,1	24,7
<i>Strong</i>	27,3	22,9	67,7	41,6
<i>Total</i>	100,0	100,0	100,0	100,0

Tab. 3 - Strength of ties among associates * typology of relations with Association (Column Percentage)

In addition, the affiliation to Confindustria seems to influence the degree of trust invested in the linkages with other associates: firms who present a continuous relations with the association seem to invest a higher level of trust in the relations with the other members (62,9% vs 44,1% of the sample).

	<i>Lack of relation</i>	<i>Irregular relationsn</i>	<i>Continuous relations</i>	<i>Total</i>
<i>Partial trust</i>	70,6	65,9	37,1	55,9
<i>Complete trust</i>	29,4	34,1	62,9	44,1
<i>Total</i>	100,0	100,0	100,0	100,0

Tab 4 - Typology of relations with Association * level of trust in the relations among associates (column percentage)

To sum up, there seems to be an association between the relation with the association and the development of linkages with other firms. However, this association needs to be tested by further studies.

Turning to explore the structural architecture of our network of associates, we start with some basic demographics. Our network has 180 actors represented by firms associated to Confindustria Salerno. In any network, there are $k * k-1$ ordered pair of actors, where k is the number of actors. Put the same way, the number of possible ties grows exponentially with the size of the network. Thus, in our network of 180 nodes, with directed data, there are $180*179$ possible ties, that is 32220 logically possible relationships. The density of our overall network is just of 0,052. That is, just 0,52% of all possible ties are present (168).

In our network there is no path²⁰⁰ between every pair of actors in the network. This means that it is disconnected. The nodes in a disconnected network may form connected subsets called

²⁰⁰ There are some network properties which need to be introduced since they are not only important in themselves, but are also building blocks for later properties. We refer to walks, trail and paths. A walk is a sequence of nodes and relations beginning and ending with nodes (Wasserman, Faust, p. 105; Hanneman, Riddle, 2005, p. 103). In a walk nodes and relations may be included more than once. A trail is a walk where relations are not used more than once. Instead a path is a walk where neither nodes and relations are used more than once.

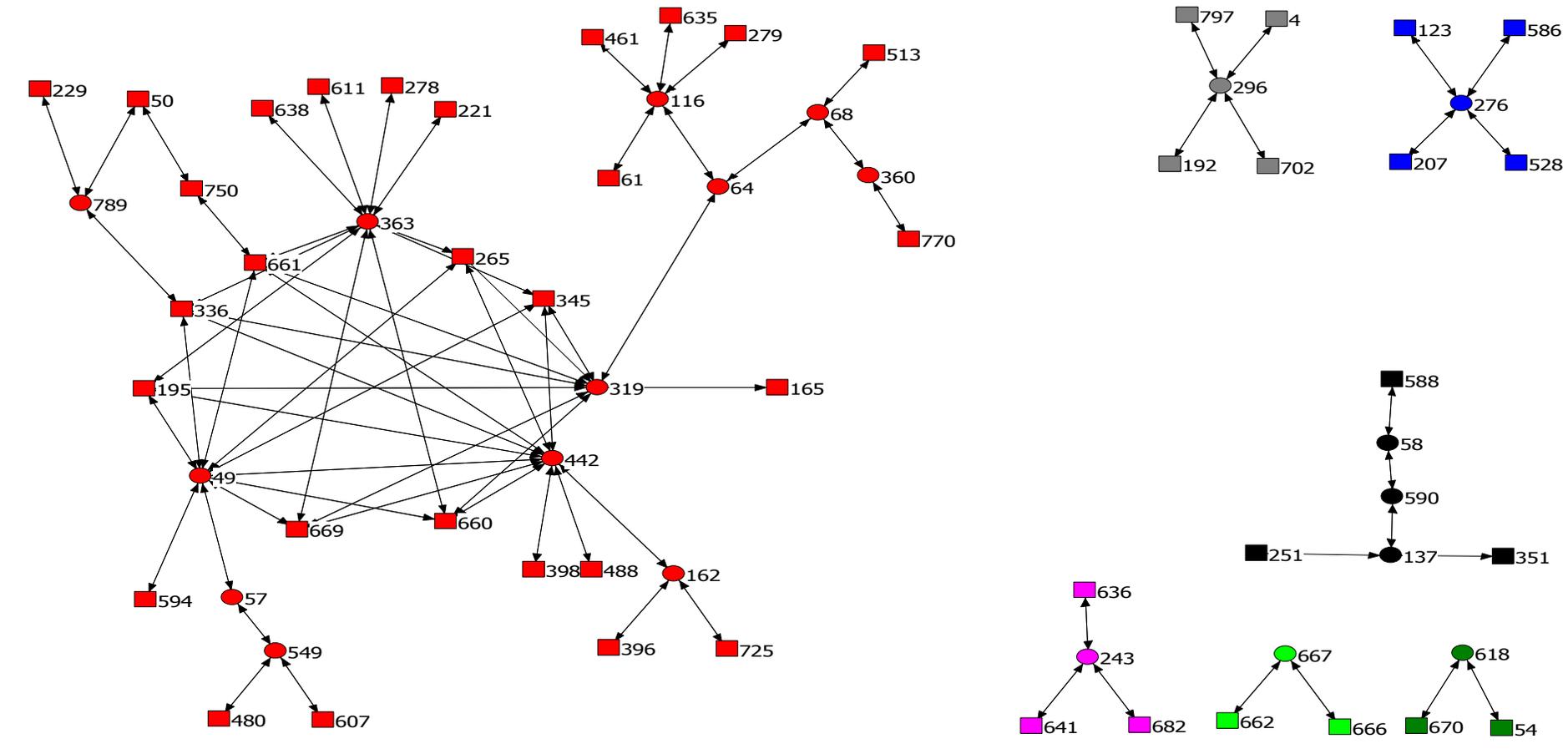
components. Obviously, a connected network has just one component. Thus, a component can be defined as the maximal connected subgraph where there is a path between all pair of nodes in the subgraph (no matter how long), but no paths between the nodes in different subgraphs.

Our business association network presents 7 components, shown in different colours in figure 6.

There are several paths between a pair of nodes and these paths differ in length. In network terminology a geodesic identifies the shortest path between two nodes (Wasserman, Faust, 1994, p. 110). When a network is disconnected – as in our case – we cannot exactly quantify the geodesic distances among all pairs. That is why we concentrate on the main component of our network (shown in figure 6 in blue). Here, the average geodesic distance is 3.8, that is on average the steps necessary to reach other firms are less than 4.

The largest geodesic distance between any pair of nodes in a network determines its diameter. Since our network is disconnected, considered overall its diameter is infinite (or undefined). We can instead calculate the diameter of our main component, not considering any geodesic outside that component. In this case, the diameter of the component would be the length of the largest geodesic within the graph. The diameter of the main component is 8. In other words, in order to get from one side of the network to the other are necessary 8 steps.

Fig. 6 - A representation of the 7 components



There are some nodes and lines that are critical for the connectivity of a network. The connectivity of a network is function of whether a network remains connected when some lines and nodes are deleted. Some nodes are defines *cutpoints* because if deleted would disconnect the network. In figure 6, these nodes present a circle shape.

Since the data in our network are asymmetric, we can distinguish between ties being sent and ties being received, calculating the degree of a node. This can tell us a good bit about the way in which actors are embedded in the network. We distinguish 2 kind of degrees: the in-degree and the out-degree. The former informs about the tendency of actor to make choices, the latter the tendency to receive choices. In other words, the former is the sum of connections from the actor to others, the latter the sum of ties which are sent to the focal actors. Semantically, the out-degree is a measure of expansiveness (Wasserman, Faust, 1994, p. 125) and influence (Hannerman, Riddle, 2005, p.97), the in-degree of receptivity, popularity, power and prestige.

The nodes which present a higher out-degree value, so being sender of connections, are 49, 319, 363 and 442. Firm 49 communicates with 10 other firms, 319 with 8 firms, 363 and 442 with 11. Thus, there seems to be a variation in the roles that these firms play as sources of information. Examining the statistics for in-degree, we find that the sinks or receiver of connections – that is the firms with higher in-degree – are the same nodes. Perhaps these firms act as “communicators” and “facilitators” in the network.

The degree of firms is often an effective measure of an actor’s centrality and power. Firms who have more ties may be advantaged positions since they could have alternative ways of satisfy their needs and be able to call on more resources of the network as a whole. These firms can be considered third parties and deal makers in exchanges among other associates. It also appears that our business association network may have a group of central actor rather than a single “star”. Nevertheless, the graph centralization measure, which describes the centralization of the network as a whole, is of 21%. This means that, overall, the power of individual actors does not seem to vary substantially. This measure expresses the degree of variance in our network as a percentage of that of a perfect star network of the same size²⁰¹. Thus, it can be stated that in our network positional advantages are rather equally distributed.

However, this measure only takes into account the immediate ties an actor has, ignoring its indirect ties to all others. One actor might be linked to many others which can be in turn rather disconnected from the overall network. Thus, it can be appropriate to focus on the distance from each actor to all others. That is the reason why we calculate the reach centrality which measures the portion of all others ego can reach in one step, two steps, three steps and so on. As we can see from table 5, firms 49, 363 and 442 reach around 30% of other firms with 1 step. Firms 49, 195, 265, 336, 345, 660, 661 and 669 reach around 50% of other firms with 2 steps. Finally, firms 195, 265, 319, 336, 345, 660, 661 and 669 reach almost all actors with 4 steps.

²⁰¹ The star network is the most centralized network. In it positional advantages are unequally distributed since all the actors have degree of one and the star has degree of the number of actors, less one.

<i>Nodes</i>	<i>1 step</i>	<i>2 steps</i>	<i>3 steps</i>	<i>4 steps</i>	<i>5 steps</i>
49	0.26	0.46	0.77	0.82	0.97
50	0.05	0.13	0.23	0.64	0.77
57	0.05	0.33	0.51	0.77	0.82
61	0.03	0.13	0.18	0.41	0.56
64	0.08	0.41	0.56	0.87	0.95
68	0.08	0.15	0.44	0.56	0.87
116	0.13	0.18	0.41	0.56	0.87
162	0.08	0.33	0.49	0.72	0.82
165	0.00	0.00	0.00	0.00	0.00
195	0.10	0.54	0.72	0.97	1.00
221	0.03	0.28	0.41	0.64	0.77
229	0.03	0.08	0.21	0.64	0.77
265	0.10	0.54	0.72	0.97	1.00
278	0.03	0.28	0.41	0.64	0.77
279	0.03	0.13	0.18	0.41	0.56
319	0.21	0.38	0.85	0.95	1.00
336	0.13	0.62	0.77	0.97	1.00
345	0.10	0.54	0.72	0.97	1.00
360	0.05	0.10	0.15	0.44	0.56
363	0.28	0.41	0.64	0.77	0.97
396	0.03	0.08	0.33	0.49	0.72
398	0.03	0.28	0.49	0.72	0.82
442	0.28	0.49	0.72	0.82	0.97
461	0.03	0.13	0.18	0.41	0.56
480	0.03	0.08	0.10	0.33	0.51
488	0.03	0.28	0.49	0.72	0.82
513	0.03	0.08	0.15	0.44	0.56
549	0.08	0.10	0.33	0.51	0.77
594	0.03	0.26	0.46	0.77	0.82
607	0.03	0.08	0.10	0.33	0.51
611	0.03	0.28	0.41	0.64	0.77
635	0.03	0.13	0.18	0.41	0.56
638	0.03	0.28	0.41	0.64	0.77
660	0.10	0.54	0.72	0.97	1.00
661	0.13	0.59	0.74	0.97	1.00
669	0.10	0.54	0.72	0.97	1.00
725	0.03	0.08	0.33	0.49	0.72
750	0.05	0.18	0.64	0.77	0.97
770	0.03	0.05	0.10	0.15	0.44
789	0.08	0.21	0.64	0.77	0.97

Tab. 5 - Proportion of nodes reachable by each node in n steps

By trying to avoid to be misled from patterns that are local and in order to find the most central actors in terms of the global or overall structure of our network, we use the eigenvector of geodesic distances. The highest eigenvector is provided by firms 49, 319, 363 and 442. In this case the overall centralization is more than 51%. This is much more than the network centralization measure provided by degree centrality (21%) and suggests that some of the

apparent differences in power using degree centralization may be due more to global than to local inequalities.

Still, interactions between non adjacent firms may depend on firms who lie on the paths between them (Wasserman, Faust, 1994, p. 188). These last firms might have influence and control over the ties among nonadjacent firms. Thus betweenness centrality measures the number of times a node lies along the geodesic (the shortest path) of two actors. Through this measure we can see that, in order, firms with the highest betweenness are 319, 64, 442, 49, 363, 116, 336, 68 and 57 and that there is a lot of variation in actor betweenness (standard deviation=156,951 relative to a mean of 107.075). This means that a lot of connections cannot be made in this network without the aid of intermediary. In this sense, in our network there are several structural constraints which could be important for group formation, stratification and for the development of social capital. These structural constraints are represented by firms which have a continuous relation with the Association, as show in figure 7 where we represent in red the firms with a continuous relation and in blue those with an irregular or absent relation .

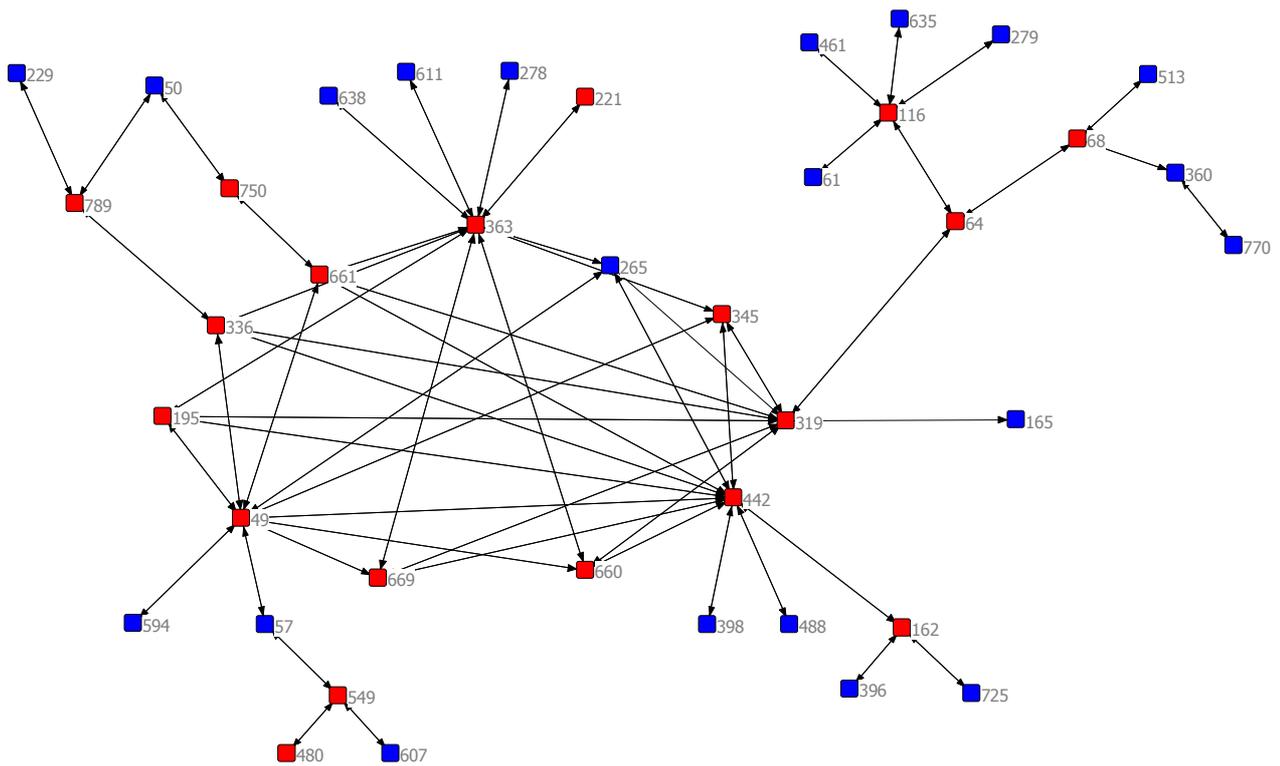


Fig. 7 - Firms with a continuous relation with the Association

DISCUSSION

The study has shown some firms to be more central than others. The firms which are structurally more central seem to also have an active and continuous relation with the association. These firms might have a particular role in the process of creation of social capital.

Thus, in the case of a business association network, three out of the five abovementioned seems to be the dimensions of social capital which can be potentially activated: the governance, structural and expressive dimensions. At this point we are able to hypothesize some theoretical proposition which need to be tested with a more elaborated study.

First, the particular kind of relations enabled by a business association can create a closely knit network where members can trust each other to honor obligations diminishing the uncertainty of their exchange and the risk of opportunism.

Proposition 1: being inserted within a Business Association network – through reciprocity which turns relationships into mechanisms of social control – might have governance implications.

Second, the particular structure of this association may itself have an informational and control value. The former is supposed to derive from the bridging of structural holes by particular firms, the latter from the central position of certain players.

Proposition 2: by being inserted within a Business Association network there might be structural advantages which determine informational and control benefits.

This network might also be a source of organizational identity and social support. In this sense this particular ties can be referred as determinants of identity, forging not only a sense of personal belonging but also creating and sustaining a normative framework within which actors can act.

Proposition 3: a Business Association network might be a source of identity forging, status recognition, shared representation, languages, codes and systems of meaning among parties.

RESEARCH AGENDA

A further investigation is needed in order to improve our knowledge of the mechanisms at the basis of affiliation. As further steps, we aim at:

1. converting values, attitudes, opinions, norms and languages into measurable variables. Starting from the belief that the mere fact of a tie implies little about the likelihood that collaborative effects will materialize and that motivations constitute not merely a contingency factor but a direct source of social capital, we will focus on internalization of norms, values, attitudes and opinions. Stated the difficulty of values' measurement, we will adopt qualitative methods, considered more suitable with the complexity of the subject. In particular, we are going to use techniques based on non-directivity, such as *hermeneutic interviews* (Montesperelli, 1998) and *stories* (Marradi, 2005). The interviews will be done through the typology of relations built

which will help to identify “typical firms” concerning with the different types of relations with the association and among associates.

2. The results obtained with the aid of qualitative procedures will be used to select measurable variables to be inserted into a questionnaire to be polled to the totality of firms.
3. Multiple regression will be used to test whether associationism do have an effect on the development of social capital.

Then, in this way we can intende the term *business association* as “specific modality of social interaction based on proximity”, while a *Business Association* can be qualified in metaphorical sense as a “place in which social interactions are developed between affiliated entrepreneurs”. This view to confer force to the influence that Business Associations could release on the conditions necessary for the creation of value in structural, relational and cognitive terms (Gulati, 1995; Walker *et al.*, 1997; McPherson *et al.*, 2001; Merret *et al.*, 2008; McCormick *et al.*, 2008).

APPENDIX

	<i>Percentage</i>
<i>No events</i>	<i>13,7</i>
<i>Some events</i>	<i>77,5</i>
<i>All events</i>	<i>8,8</i>
<i>Total</i>	<i>100,0</i>

Univariate and bivariate tables

Participation to events organized by Confindustria

	<i>Percentage</i>
<i>Educational</i>	42,1
<i>Informational</i>	12,3
<i>Political</i>	10,5
<i>International</i>	8,8
<i>Legislative</i>	7,0
<i>Trade fairs</i>	7,0
<i>Institutional meetings</i>	3,5
<i>Environmental</i>	3,5
<i>Innovative</i>	1,8
<i>Costozero</i>	1,8
<i>Financial</i>	1,8
<i>Total</i>	100,0

Kind of events attended by firms (Response Percentage)

	<i>Percentage</i>
<i>Never</i>	5,1
<i>Rarely</i>	54,5
<i>Often</i>	40,4
<i>Total</i>	100,0

Frequency of exchanges with Confindustria

	<i>Percentage</i>
<i>Daily</i>	8,5
<i>Weekly</i>	26,8
<i>Monthly</i>	46,3
<i>Annually</i>	18,3
<i>Total</i>	100,0

Frequency of relations among associates

	Percentage
<i>Economic relations</i>	40,1
<i>Informational relations</i>	30,6
<i>Informal relations</i>	29,3
<i>Total</i>	100,0

Kind of relationships among associates

	Percentage
<i>Partial</i>	55,7
<i>Complete</i>	44,3
<i>Total</i>	100,0

Level of trust invested in the relationship

	<i>Partial</i>	<i>Complete</i>	<i>Total</i>
<i>Economic relations</i>	37,0	43,7	40,1
<i>Informational relations</i>	34,6	26,8	30,9
<i>Informal relations</i>	28,4	29,6	28,9
<i>Total</i>	100,0	100,0	100,0

Kind of relationships among associates * level of trust (Column Percentage)

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EQUITY ALLIANCES AND INFORMAL RELATIONS: THE “BUSINESS GROUP STRATEGY” OF MAX MARA FASHION GROUP

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Key words: Business group - equity alliances - informal relations

During the last two decades, interfirm alliances have been considered as clever vehicle by means of corporations expand their scope and implement their strategy, developing their organizational structure and relation context (Anderson, 1990).

The term “alliances” covers diverse modalities of governance, from relational contracting to licencing, from the supply-chain relationships, to equity joint ventures (Gulati & Singh, 1998). The Lorange & Contractor (2002) classification will be used on the basis of which an alliance is “any inter-firm cooperation that falls between the extremes of discrete, short-term contracts and the complete merger of two or more organizations”. Details of the some of the most common agreements and the different ways in which firms can co-operate with one another are shown below in Fig.1

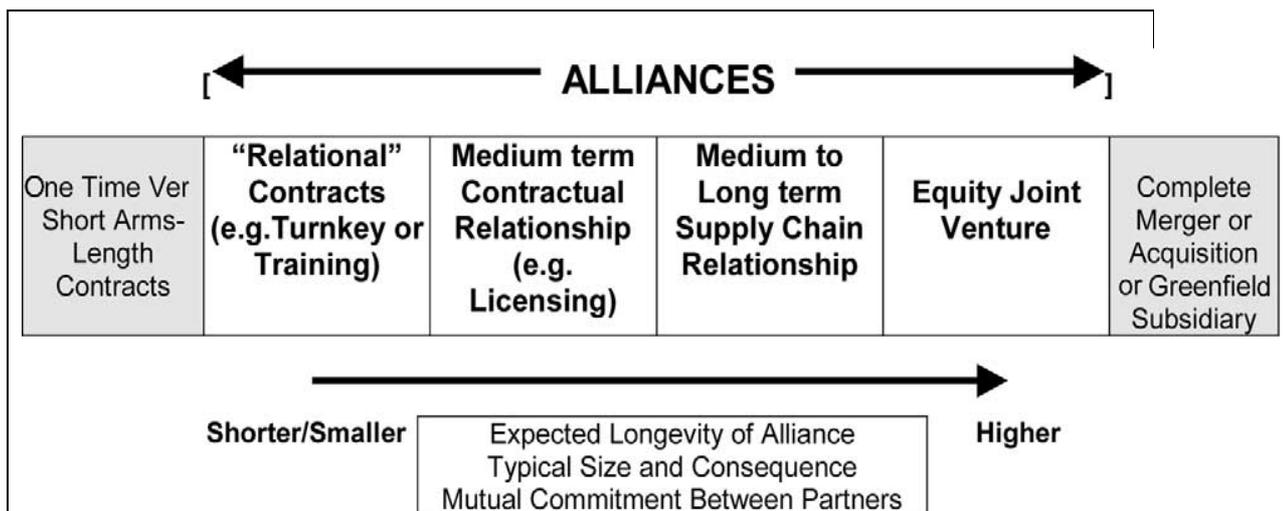


Fig. 1 – A typology of alliances. Source: Lorange & Contractor, 2002.

Considering the legal and technical specific of interfirm alliances, Barney (2002) discriminate between *non-equity alliance*, *equity alliance* and *joint venture*. The first one are those in which the cooperation is carry out by contracts turn on systematic and settled collaboration (Rispoli, 1989), but without any property right (i.e., *franchising*, *licensing*). The second one are similar to the *non-equity alliance* excluding for the property right. In fact, this kind of ties are characterized by the equity sharing, even mutual between partners and by a strong strategic interest, that could assure the government. Inside of *equity-alliance* there are the *joint venture* that consist of a new owned independent firm at the same time managed by several partner that share profit and loss (Hennart, 1988).

Making an allowance for the cultural distance of partners and their motives in entering alliances, the choices in governance of them are various, from structural point of view, and complex from social network perspective. Then, the analysis of their architecture of coordination is complex.

Prior research on governance structure of alliances, have considered the presence of share equity in alliances as synonymous with hierarchy (Gulati and Singh, 1998). Alliances involving equity considered to be more hierarchical than non-equity exchange (Hennart, 1988; Teece, 1992). Equity has been considered an indicator of hierarchy because it is considered to be an effective mechanism for managing the rent appropriation concerns associated with partnering (Pisano et al., 1988; Moon and Khanna, 1995).

In alliances, hierarchical controls formalize interactions between partners (Van de Ven, 1976) and clarify boundaries on decisions and activities; then, they simplify decision making (Galbraith, 1977). More over, hierarchical controls in alliances facilitate coordination through informal means and create a sense of shared purpose that can motivate and guide individual participants and minimize conflict among them (Barnard, 1938; Ghoshal and Moran, 1996).

On the other hand, when there is trust, firms no longer consider hierarchical controls to be necessary (Powell, 1990; Ring and Ven de Ven, 1992; Gulati, 1995). An important consequences of the embeddedness of economic transactions such as alliances in a social structure of trusting relationship is that the partners are likely to have greater confidence in the predictability of each other's actions and thus anticipate lower appropriation concerns when they form an alliances (Granovetter, 1985; Gulati and Gargiulo, 1999).

Gulati and Singh (1998) argue that the presence of equity sharing masks any important element helpful for classifying the governance structure of alliances: presence of distinct degree of hierarchical controls and different way in which such controls manifest themselves.

This considerations about the elements that can help us to understand the governance structure of alliances suggested us a reflection in order to the relational's architecture of the business group and induce to ask us if the current definition of corporate strategy can explain the actual strategic dynamic of business group.

Recently, business group are emerged as a distinct theme in the literature from other types of firm network based on strategic relationship among companies (Khama and Yafeh, 2005).

Cuervo-Cazurra (2006) argues that business group are "a set of legally-separate firms with stable relationships operating in multiple strategically unrelated activities and under common ownership and

control". In this point of view, business group are identified as a type of firm network, with a multiple stable relationships, but in a different way from these one, business group are characterized merely by stable relationships on the basis of common ownership. Instead, the other types of relationship among firms - like supplier, distributor, strategic, geographic - are classify as firm network.

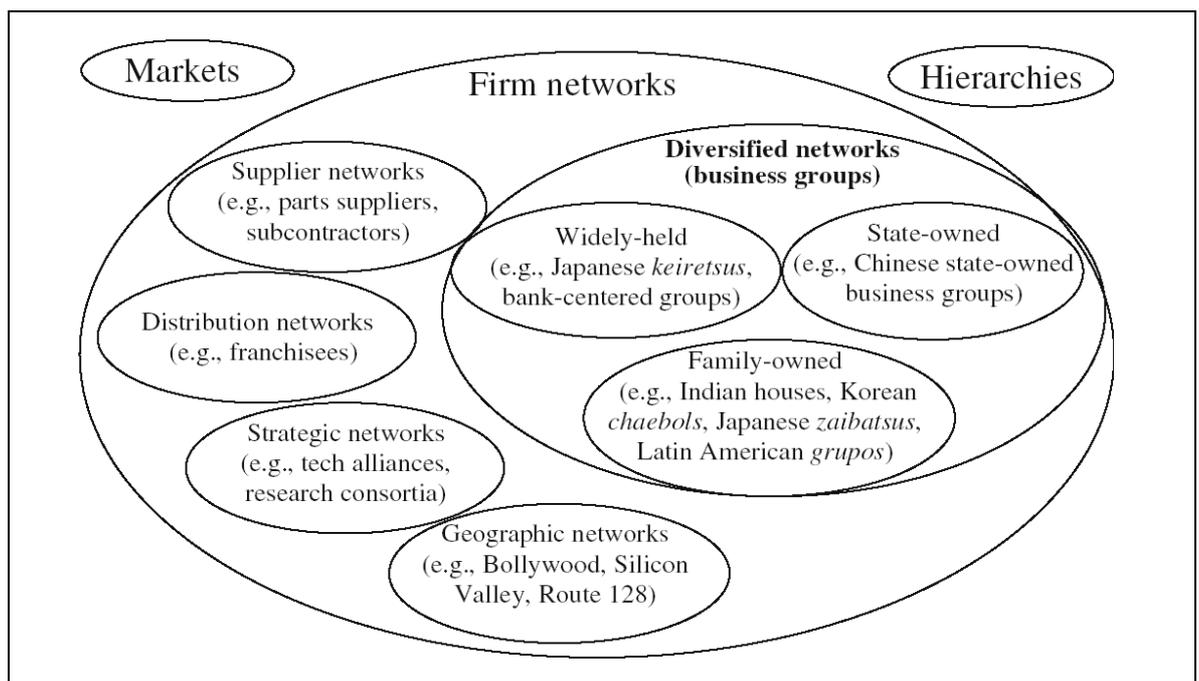


Fig. 2 – Separating business groups from other firm network. Source: Cuervo-Cazurra, 2006

We do not share this definition that undervalue the weight of informal relationships. There are many other definition of business group but despite of the multiplicity of studies there is no one accepted.

According to Granovetter (2005: 429) in our framework *"Business groups are sets of legally separate firms bound together in persistent formal and/or informal ways. The level of binding is intermediate between, and should be contrasted to two extremes that are not business groups: sets of firms linked merely by short-term strategic alliances, and those legally consolidated into a single entity."*

Therefore, in our study we would like to analyze informal relationship as an identifying characteristic of the business group and, at the same time, as a dimension that can gather the strategic dynamic of business group.

The aim of this paper is to analyze the relational's architecture of the business groups and their evolution over the time to highlights their strategic dynamics.

Starting from considerations we develop an explorative study on Max Mara fashion Group (MMFG), an Italian business group of Textile-clothing industries, that have to support our new framework of "business group strategy".

The research is performed in different steps:

I) Analysis and identification of business group

- a) Search and selection of network's firms by obtaining number of MMFG's holding/ shares;
- b) Identifying the connection of members in the governing bodies of the firms of the MMFG (Interlocking directorship);
- c) Longitudinal analysis of equity alliances and informal relations (connection of members).

II) Extrapolation of the scheme that can understand relational's architecture of the MMFG and its evolution over the time to highlights its strategic dynamics.

Our study raises a number of issues to be explored and debated by future research. Pragmatically, the study describes a MMFG behavior that might facilitate the comprehension of its strategic dynamics but we know limit of this study because there are numerous other questions that arise one we consider the dynamic evolution of the alliances. As Gulati and Singh (1998) argue, "it would be useful to examine how the governance structure of alliances changes as expectations and goals of partners in the alliances evolve, as well as the extent of asset-specific investments undertaken by the partners and how these may change over time".

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'STANDARDIZATION/ADAPTATION' OF PROMOTIONAL CHANNELS IN EURO-MEDITERRANEAN COUNTRIES

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Purpose: The purpose of the current paper is to shed more light on the influence of a tourism-oriented environment on the promotional strategies of fast-moving consumer goods firms

Design/methodology/approach: The study utilises an exploratory, qualitative research design through fourteen case studies of fast-moving consumer goods firms operating in the tourism-oriented environment of Greece

Findings: Findings show that most firms utilise adapted promotional channels due to the influence of structural characteristics of the tourism industry and tourists' modes of behavior

Research limitations/implications: The qualitative study's outcomes are limited to the context that is investigated and thus, future researchers are encouraged to investigate similar contexts with the goal of generalising findings to the population

Practical implications: Findings suggest that firms ought to appreciate the contextual idiosyncrasies of Euro-Mediterranean countries (as a result of international tourism) and thus, tailor their programs to these idiosyncrasies, which are distinct from other non-tourism-oriented environments

Originality/value: To the best of authors' knowledge, this is the first paper that investigates the tourism-induced idiosyncrasies of Euro-Mediterranean countries and their attendant consequences on fast-moving consumer goods firms' promotional strategies. In light of the increasing importance of global consumer mobility, such studies are expected to increase.

Keywords: standardization, adaptation, promotional channels, fast-moving consumer goods, tourism

Research paper

INTRODUCTION

International marketing is a scientific field with a well-grounded evolution over time, which has offered a holistic picture of how firms market their products across countries. Pitfalls, blunders, success stories and several models highlighting strategies and factors have been presented that allow us to better understand how firms serve the needs of millions of people around the world (Whitelock and Fastoso, 2007; Vrontis, 2003; Dalgic and Heijblom, 1996; Ricks, 1993; Kashani, 1989; Jain, 1989). In particular, the international marketing constructs of *standardisation vs. adaptation* (henceforth described as **SA**) have been long utilised in order to portray the strategic marketing alternatives firms have when they deploy their international business operations (Fastoso and Whitelock, 2007; Vrontis and Vronti, 2004; Boddewyn and Grosse, 1995; Cavusgil et al., 1993).

This literature on the SA debate has been largely developed upon a major premise. This is the assumption that all consumer groups in a country are culturally homogeneous (or at least, treated as such) or that, intra-country cultural variations are less important than inter-country differences. This might have been a necessary condition for the field to excel however, several

studies increasingly highlight the strong influence of the multicultural character of national markets, as a result of e.g. immigration or inherent, within-country racial pluralism (Cui, 1997; Chung and Wang, 2006). Therefore, the relevance of political boundaries as frameworks of national homogeneity is decreased to a certain extent and inducements stemming from within-country cultural diversity also feature as influential for strategy-making.

From the point of view of the present paper, an even more important feature of such studies is that these researches use the SA construct to explain marketing strategies of firms in a domestic, yet multicultural context. For example, Cui (1997) uses the SA framework to explore alternative marketing strategies of consumer goods firms operating in the single but multi-ethnic market of America (as a result of immigration) while Chung and Wang (2006) recently considered the multi-cultural cities of China and applied the SA framework in the services sector across culturally diverse Chinese cities. These authors point out that *"the same framework of standardization vs. customization can be applied to marketing to consumers of different ethnic cultures in the domestic market"* (Cui, 1997, p.125) since such markets are *"...a small scale model of the global market"* (p.125) in which, similarity of the marketing offering to all consumers denotes standardization whereas different strategies among ethnic segments denote adaptation.

Therefore, authors such as Cui (1997) or Chung and Wang (2006) applied a standardization/adaptation lens on local marketing actions directed towards people with diverse cultural backgrounds. Such works are particularly relevant since the marketing of food, beverage and cosmetics firms are portrayed as being heavily influenced by the cultural diversity of consumers (e.g. Cui, p.126). These industries are the focus of this study, too and it seems that the cultural pluralism within a country is of vital importance for firms marketing such products.

In particular, this paper is interested in how fast-moving consumer goods (FMCG) firms' promotional channel strategies are influenced by the 'international' character of most Mediterranean countries, either towards standardization or adaptation. As we will explain, this 'international' character comes as a result of international tourism. Hereafter, we delineate the nature of the problem, we pose our research questions, we explain the methodology and we present findings with the purpose of generating a relevant model and empirically-laden propositions.

CONTEXTUAL BACKGROUND AND RESEARCH OBJECTIVE

The approach Cui (1997) and Chung and Wang (2006) utilize, that is applying the SA framework to intra (or within) country diversities, is also used in this study. However, this time, with a particular reference to the tourism-induced multicultural character of Euro-Mediterranean countries such as Spain, Croatia, Cyprus, Malta or Greece. We strongly agree with the quote in the EuroMed Journal of Business that *'the challenges and threats to managers and researchers that operate within the region often have distinct differences to those experienced in other geographic areas in the world'* (<http://info.emeraldinsight.com/products/journals/journals.htm?PHPSESSID=ocphmtucelij0tj18hso9bmio2&id=emjb>, retrieved on the 6th of June 2009) e.g. as opposed to Northern European or Northern American countries.

This quote matches with our motivation for the formulation of this paper. In particular, we approach the phenomenon of international tourism (which is a key macro-environmental feature of the Euro-Mediterranean region) as a challenge for FMCG firms; a phenomenon that warrants closer attention. Thus, a main aim of this study is to explain this contextual idiosyncrasy of the region and explore how the environmental opportunities and threats that this unique marketplace development brings induce firms' promotional channel strategies towards standardisation or adaptation.

Specifically, in a number of Euro-Mediterranean countries, there is a large influx of foreign consumers, or tourists, from many countries and for a significant part of the year. As can be seen from the following table, for developed countries with mature markets such as France or Spain, the annual influx of tourists collectively exceeds the population of these countries by large margins.

	<i>Tourist Arrivals</i> (millions of tourists)	<i>Domestic population</i> (millions of inhabitants)
<i>France</i>	79.08	60
<i>Spain</i>	58.45	40
<i>Italy</i>	41.05	58
<i>Greece</i>	14.78	11

Table 1: Foreign and domestic consumers in a country (2006 data²⁰², World Tourism Organization/World Tourism)

In these countries, tourism transforms a relatively limited national market into a much larger, multinational market. In a sense, during the tourist season (which can be most of the year), firms operating in these countries face 'international' marketing tasks but within the confines of an enlarged country. These firms do not have to serve only the 'native', permanent population but also a multicultural group of consumers on a temporary basis per annum.

For this research though, the most important thing is that it is not only firms in the tourist sector (e.g. hotels, tour operators, airline companies, travel agents etc.) that are thus affected. Clearly, tourists are also consumers of a whole range of goods and services that are not produced by the tourist industry. For example, tourists consume beers, soft drinks, ice creams, toothpastes and snack food. Thus, tourists are consumers of packaged goods belonging to product categories that are sold in the destination/market even if tourism was not developed at all in the country and also are sold in the tourists' usual habitat back home.

This market feature, while having challenging implications for FMCG firms is a reality the research community in business studies has not investigated before. Despite tourism's importance as one of the largest industries in the world, the fact that it affects numerous non-tourism-related firms in several countries is still unexplored. We currently do not know how these FMCG firms selling food, beverage and cosmetics products tackle this additional and nationally heterogeneous consumer base that temporarily changes the status quo of the markets they operate. Therefore, the research objective of this study is the following:

To explore the consequences of within country diversity as a result of inbound tourism for the promotional channel strategy of FMCG firms operating in the tourist-receiving country

RESEARCH QUESTIONS AND LITERATURE REVIEW

Our literature review revolves around the core SA debate in international marketing research. This rich body of established knowledge has been developed for many decades already and given the research objective of this study, it is the SA strategies and their antecedents/drivers that are germane. Thus, standardization/adaptation literature was the main pool of insight that guided data collection and informed case data analysis. Specifically, we approached the SA literature with the purpose of extracting insights related to the following research questions:

- 1) How does the contextually idiosyncratic character of Mediterranean markets as a result of international tourism influence FMCG firms' promotional channel strategy towards standardization or adaptation?
- 2) What factors lead to one or the other approach?

At this point, we clarify the following definitions for the two main constructs used in our study (adapted from Cui, 1997 and Chung and Wang, 2006):

Standardization refers to using the same promotional channel strategies towards the tourist population with the ones used for the permanent, local population throughout the year while

Adaptation refers to using promotional channel strategies which are different to the ones used for the permanent, local population

The background forces that influence a firm's decision to standardize or adapt its strategy are numerous and the literature has identified and investigated a wide range of them. Buzzell (1968) was one of the pioneers of the debate and made a thorough analysis of the benefits of standardization including significant cost savings, consistency with customers, improved planning and control and the exploitation of good ideas on a worldwide scale. However, he also considered the barriers to standardization, which impose a limit to the degree of standardization in elements of the marketing mix. Overall, he offered a comprehensive model of the influential variables with regards to the degree of standardization of marketing elements. Those variables were classified as market characteristics including the physical environment, the stage of economic development and cultural factors, industry conditions including product life-cycle and competition, marketing institutions including the distribution system and the advertising channels and legal restrictions.

Since then, research grew but this growth and the discrepancies of findings in SA studies have necessitated the use of classification schemes of factors, which grew bigger and were refined by several authors via meta-analyses and integration of empirical research (e.g. Vrontis, 2003; Papavassiliou and Stathakopoulos, 1997; Agrawal, 1995). The outcome of these classifications has given rise to several dichotomies of factors (internal vs. external, mandatory vs. desirable, environmental-industrial-organizational, controllable vs. uncontrollable factors etc.) which offer a convenient and insightful way of portraying reality.

Following the work of such authors, the literature results reveal that marketing standardization or adaptation is a situation-specific decision that cannot follow a 'golden rule' or equation of success but rather it is the outcome of the need for fit between the chosen strategy and environmental contingencies (Katsikeas et al., 2006; Okazaki et al., 2006). For example, promotional channels may vary enormously across contexts due to e.g. availability of channels. Therefore, an important issue for the firm/researcher is to unravel the complexity of factors that work out towards standardization or adaptation and preferably do so through a context-specific lens.

A first set of the numerous factors that dictate SA strategies are the environmental factors. These consist of economic, socio-cultural, political forces (political environment, religion, climate, laws etc.), which influence international operations directly or indirectly (Chung, 2003; Cavusgil et al., 1993; Akaah, 1991). Such factors can be prohibiting for the implementation of a standardization approach, no matter how desirable it is, and it is suggested that firms must always scan the external environment before launching their standardised/adapted strategies (Vrontis and Pavlou, 2008).

Additionally, market factors are those market characteristics that determine the level of potential demand in a market (Rau and Preble, 1987) and account for "... changes in customer composition, customer needs, customer base, customer preferences and market demand growth" (Powers and Loyka, 2007, p. 682). For example, the market size has an impact on standardization decisions as the larger the market, the more adaptation is generally required or even preferred. This is because the potential for higher sales volume in a large market will cover the higher costs of adaptation (Chhabra, 1996). This observation is particularly relevant for a tourism-oriented, Euro-Mediterranean market such as Malta or Cyprus, which are significantly enlarged each year because of incoming tourism flows. Therefore, this study, which deals with such unexplored markets, is interested in their contextual characteristics (e.g. seasonality of tourism or length of stay of tourists). The focus on the contextual characteristics is critical since the tourism-oriented market is the platform that annually and temporarily generates new forms of customer composition, customer needs, customer base, customer preferences and market demand growth (Powers and Loyka, 2007) with attendant consequences for SA.

Competition-related factors include the structure (monopolistic vs. oligopolistic), nature (price vs. nonprice) and intensity (mild vs. fierce) of competition in foreign markets (Theodosiou and Leonidou, 2003; Rosen, 1990; Jain, 1989). Contrary to the view that marketers should consider the origin, number and position of competitors in each market (Buzzell, 1968, Jain, 1989) the structure and nature of competition does not have a serious impact on the decision to standardize or adapt in most studies (Theodosiou and Leonidou, 2003). The intensity of competition though is positively associated with promotion adaptation (Cavusgil, Zou and Naidu, 1993) whereas the intensity of competition and the competitive hostility in a market affect the inducements for responsiveness by firms (Slater and Narver, 1994; Kohli and Jaworski, 1990). In any case, many researchers have identified the correlation between competition and SA making it an omnipresent factor in every SA attempt (Sorenson and Wiechmann, 1975; Theodosiou and Katsikeas, 2001; Michell et al., 1998; Ozsomer et al., 1991; Jain, 1989; Buzzell, 1968; Boddedwyn et al., 1986). Even since the 70s, Sorenson and Weichmann (1975) stated that competition among MNEs leads to greater standardization while competition against purely

local firms leads to higher adaptation. Cavusgil and Zou (1994) also argued that the presence of foreign competitors across foreign markets and the intensity of competition in the field of pricing are correlated with adaptation. In other words, intensive local competition is expected to lead to higher adaptation as such pressures may necessitate a better fit with local needs that only modifications on promotional aspects can bring.

Product and industry factors refer to the type of the product (consumer or industrial), the role of technology in the industry and the stage of product life-cycle (Boddewyn et al., 1986). Despite the ubiquitous belief that industrial products receive more standardization due to the rational rather than emotional buying process that underlines purchasing of such products, the literature only partially confirms such views empirically. For example, in Michell et al.'s (1998) research, the type of product was not associated with the degree of standardization with industrial firms having similar levels of standardization with consumer firms. The analysis indicated that the degree of standardization related more to within-firm variables than industry type while the degree of adaptation was connected more with country variables (customs, consumer characteristics, culture, legal system, channels structure etc.). However, the desirability of culture-bound products' adaptation is well manifested, at least theoretically, in the literature (O'Donnell and Jeong, 2000; Cavusgil and Zou 1994; Samiee and Roth, 1992; Whitelock, 1987; Rau and Preble, 1987).

Organizational/managerial factors often intermingle and refer to internal characteristics or processes of the firm (Whitelock and Pimblett, 1997; Cavusgil et al., 2003). They more or less coincide with the field of research that deals with the resource-based view of the firm (Barney et al., 2001) i.e. company-specific actions and facts as opposed to industrial organization theory (Porter, 1980). Items in this category can include the nationality of the parent company, the nature of company ownership, firm's international experience or the attitude toward international operations including the centralization of decision-making and corporate openness towards foreign approaches (Cadogan et al., 2002; Solberg, 2002; Ozsomer et al., 1991; Rau and Preble, 1987).

The implications for companies vary according to the status of the firm (MNE vs. local firm and even further an MNE with a geocentric vs. a polycentric approach; Perlmutter, 1969) and one can expect different influences on each firm. As shown in Ozsomer et al. (1991), the influencing role of nationality of the parent company was important. For example, American firms tend to standardize more than most of their European counterparts whereas findings also supported the view that MNEs tend to desire more globally integrated marketing programs through higher control over subsidiaries. This is mostly reflected on product design decisions, brand name, packaging and advertising message. Yip (1997) also found that parent firm's characteristics such as nationality and size define in a way a polycentric, ethnocentric or geocentric orientation while Cavusgil and Zou (1994) stated that firms' skills and constraints profoundly influence firms' strategies.

Therefore, we see that the literature has offered a vast array of themes of factors that may influence the strategy of firms towards standardization or adaptation. This study, through an inductive, exploratory mode of investigation aims to identify which factors indeed come into play when FMCG firms choose their promotional channel strategy in a typical Mediterranean country such as Greece. Building on Eisenhardt and Graebner (2007), we aim to develop a model

and generate a posteriori propositions that reflect the way FMCG firms deal with the contextual idiosyncrasy of a tourism-oriented market. However, before presenting findings and the emerging model, the methodology we adopted is explained.

METHODOLOGY

A qualitative approach was deemed as more appropriate because of the non-typical, under-studied context of the project. Indeed, culturally idiosyncratic markets such as those identified in Euro-Mediterranean countries are rarely investigated through a multicultural lens (with exceptions such as Poulis and Yamin, 2009). The decision to embark on a case-based methodology matches with the fundamental objective of qualitative research (Hyde, 2000; Silverman, 2000), which is to uncover and illuminate contextual particularities i.e. in this case, to gain a deeper understanding of the interrelationships that shape practices of FMCG firms in a typical 'international' environment. Therefore, at this point, we would like to note that the purpose of this research is not to measure causal relationships but rather to explore an unknown phenomenon through the integration of in-depth views as expressed by respondents. In this respect, we adopt a qualitative, case study-based methodology, which is the preferred methodology when currently unexplored and/or complex phenomena need to be studied, and especially when questions of how and why need to be asked (Eisenhardt and Graebner, 2007; Yin, 2003; Miles and Huberman, 1994).

We followed a literal replication logic i.e. each case was selected because it predicts similar results (Alam, 2005; Johnston et al., 1999). These similar results refer to FMCG organizations which acknowledge the effect of inward tourism on their operations. This focus resulted to the selection of 14 firms operating in Greece, for which the influence of tourism on their promotional strategy is clearly manifested (Patton, 1990). In order to have an as maximum variation of sample as possible, we included packaged food (F), fast-food (FR) firms, cosmetics (C) and beverages (B) firms i.e. a wide range of FMCG firms. The focus is on these cases because the main consideration was to use a sample that was purposefully suited to explore the questions through information-rich cases (Eisenhardt and Graebner, 2007; Yin, 2003).

In order to enhance the robustness of our sampling framework and consequently our arguments, we had to focus on firms which are explicitly influenced by tourism-induced heterogeneity but at the same time, they are also active in the market throughout the year. In other words, opportunistic or temporary, sporadic players which tailor their offering to tourists 'by default' cannot be relevant for this study. Relevant firms were identified by a mixture of techniques (corporate databases, corporate websites, four pilot studies) but the most concrete channels to identify them was through direct observation in diverse retailing outlets of tourism and non-tourism related areas of Greece. Three major types of outlets that can be found in both areas (mini-markets, convenience stores and kiosks) were visited twice a year by the researchers and a structured recording of brands that were identified in both areas took place. This allowed a comparison between brands i) sold by firms to locals only and ii) brands sold to both locals and foreigners and informed us on which are the firms that are affected by both consumer groups. This method resulted to a relevant list of 157 firms, which are influenced sales-wise by the idiosyncratic character of the market and by both consumer groups.

Out of these firms, our sampled firms were chosen based on a maximum variation (Patton, 1990) logic with the effort to have firms across major FMCG industries. Firms offered 43 in-depth interviews of almost one hour and a half each and respondents included Trade and Marketing directors, Senior Brand managers, Group Product managers, Regional Sales

managers and similar staff from the sales or marketing departments of firms. This managerial diversity of respondents stems from our request to firms to 'nominate' the respondents themselves. After explaining the nature and scope of our investigation, firms decided on which are the most suitable managers to answer our questions.

Individual in-depth interviews were conducted, which are credited as being a largely valid method of data collection especially, in the international business field (Marschan-Piekkari et al., 2004; Yeung, 1995). The richness of information they provided, the much-needed empathy and direct communication that the interviewer developed with respondents, the control over the data collection procedure and the chance for dissolving ambiguity or probing further analysis in the view of the present researcher have compensated for the drawbacks of cost and time that this approach usually entails (Hall and Rist, 1999). Interviews started with unstructured questions and allowed respondents to freely express their knowledge and experience regarding the topic of investigation. The questions didn't reduce the flexibility that is required in a qualitative study and were susceptible to changes during the interview that allowed expansion and better illustration of responses.

Data analysis commenced with the transcription of interviews and then, data reduction took place with the purpose of 'selecting, focusing, simplifying, abstracting and transforming the data' (Miles and Huberman, 1994, p.10). The selection of the relevant parts of the interviews was a cyclical process that sharpened the analysis and organized data in such a way that meaningful excerpts were immediately evident to the author. Analysis of each case followed and the responses to our questions reflected a clear reference to the way tourism influences promotional channels selection.

FINDINGS

The focus is on the promotional channels firms utilize in order to address to incoming tourists as opposed to locals. There is a dominant indication that most firms utilize adapted channels of promotion tailored to the tourism-specific idiosyncrasy of the market. These idiosyncrasies lend themselves to a new mix of below-the-line and above-the-line activities where 'traditional' channels of communication are not fitting. Table 2 shows that ten out of fourteen firms use adapted channels to promote their brands across tourists since channels used for the local, permanent population do not suffice.

	<i>Promotional strategy</i>	
	<i>Channels Standardisation</i>	<i>Channels Adaptation</i>
<i>FR1</i>		✓
<i>FR2</i>		✓
<i>FR3</i>		✓
<i>FR4</i>		✓
<i>F1</i>		✓
<i>F2</i>		✓
<i>F3</i>		✓
<i>F4</i>	✓	
<i>F5</i>	✓	
<i>B1</i>	✓	
<i>B2</i>		✓
<i>C1</i>		✓
<i>C2</i>		✓
<i>C3</i>	✓	
<i>Total</i>	4	10

Table 2: Channels of promotion by sampled firms

Promotional channels are thus, heavily adapted with a strong geographical focus and intensification of the promotional activity during summer. Whereas during winter, the firm utilizes promotional channels such as television or radio, during summer, a large part of promotional activity takes place through non-conventional channels that are never used during winter. The following quotes are characteristic:

- *We cant use, radio, television etc. So, the channels are usually outdoor advertising or collaborations with tour operators such as TUI, which brings masses of tourists into the country. We also have collaborations with e.g. rent-a-car offices; we have a joint promotion where we both win. These are tactics that 'run' regularly in areas like these (Marketing Supervisor in a food retailing company)*
- *There was a leaflet distributed in X,Y,Z (airline firms) that had a map of Greece at the back. On it, there were the spots where FR2 is located; and at the front, it was written what FR2 is all about. We estimate that through this medium, the message of what FR2 is reached 2,5 million people. (Marketing Supervisor in a food retailing company)*

- *During summer, we focus on below-the-line activities. It is difficult to reach the consumer with above-the-line activities during summer... they don't stay home like the Greeks for which we almost exclusively use above-the-line activities (Group Product Manager in a packaged food company)*
- *In tourist areas... we have special promotions with samples, gifts etc. For example, we have more promo-packs, which means 'when buying two brands you get two miniatures as gifts'... Within outlets in tourist areas, we also pay attention to the aesthetic part. We have placed e.g. a beautician in the outlets for three months -in Santorini and Mykonos- constantly promoting brands. So, we had a more specialised promotional strategy in areas with high tourism activity (Group Product Manager in a cosmetics firm)*

Therefore, firms have exercised innovative ways to exploit promotional opportunities among tourists under conditions of limited time, non-traditional uses of channels and clustered target groups. Empirically grounded data have identified channels such as the following:

- in-store promotion is heavily used as it is one of the few instances where firms have the time to come into contact with prospective consumers
- road signage is especially utilized by fast food chains who need to showcase their location within a limited time
- gates of entrance are used for their enhanced visibility among foreign consumers
- tourism firms/organizations such as airlines, passenger ships or tour operators are seen as prime channels of promotion since they are part of the tourists' trail.

The few firms that followed a standardized approach and kept using the same channels of promotion did so because they believe that promotion adaptation is not as effective as distribution adaptation. Thus, they preferred to standardize their promotional channels and invest the relevant budget on tailoring their distribution channels to the specificities of the tourist market (e.g. tailoring the choice of middlemen).

The effort is to reach the trade and not promote among consumers. Thus, we standardize our promotional strategy and we prefer to invest the amount that we save on expanding our distribution base. (Group Product Manager in a cosmetics company)

At this point, the following propositions can be suggested:

P1: FMCG firms operating in a tourism-oriented environment adapt the promotional channels they use in order to promote their brands among tourists

P2: FMCG firms operating in a tourism-oriented environment use a new mix of above and below-the-line activities to promote their brands among tourists as opposed to an exclusive use of above-the-line activities that is used for the permanent population

P3: FMCG firms operating in a tourism-oriented environment will use the same, standardized promotional channels as with the permanent population whenever other marketing mix elements are considered more critical for the effectiveness of marketing strategy

Proposition 3 introduces us to the second research question i.e. the reasons behind the choice of primarily adapted promotional channels by FMCG firms operating in Greece. As far as the

channels of promotion are concerned, structural elements of the tourism industry/tourist modes of behavior necessitate a focused approach with adapted channels. These elements/modes, which are seen as forces pushing towards adaptation, are:

- the distinct travel path of tourists

The tourist's spatial behavior is very specific. Most of them move in specific locations and follow specific itineraries. If we do not adapt to these, we lose our chance to communicate (Marketing Manager in a beverages company)

- high seasonality of the tourism phenomenon in Greece

The selection of the channels through which we will communicate our brands to incoming tourists is largely dictated by seasonality. As you probably know, the vast majority of incoming tourists in the country come during summer. This, by default, means that we must adapt our promotional strategy to meet the peculiarities stemming from this seasonality. This is the first factor we consider in conjunction with the geographical allocation of tourists.

- the limited length of stay of tourists in the country

Each tourist stays here for approximately ten days. If we do not tailor our channels to this length of stay, then we have no chance to establish any kind of promotional contact with them (tourists) (Group Product Manager in a packaged food company).

Due to these forces, channels reflect geographical and time considerations firms have when promoting among non-permanent, mobile consumers of their product. For example, the distinct travel path of tourists and their limited spatial behavior actually means that firms that want to communicate their brands to these tourists must follow the latter's 'trail'. Such observations are in line with the need for fit between deployed strategies and environmental contingencies that several studies have pointed out in the strategic management (Venkatraman and Prescott, 1990) and international marketing literatures (Okazaki et al., 2006; Katsikeas et al., 2006). If firms, especially those operating in Mediterranean resorts, ignore the local peculiarities and the unique environmental characteristics of a tourism-oriented environment, they will fail to communicate what they need across the millions of tourists who visit their markets of operation. At this point, therefore, the following propositions can be put forward:

P4: The travel path of tourists dictates adaptation of promotional channels for a FMCG firm operating in a tourism-oriented environment

P5: The length of stay of tourists dictates adaptation of promotional channels for a FMCG firm operating in a tourism-oriented environment

P6: The seasonality of tourism dictates adaptation of promotional channels for a FMCG firm operating in a tourism-oriented environment

As a result of the heavy influence of contextual factors on promotional strategy, traditional factors that can be found in the international promotional literature such as company/organizational (e.g. firm's international experience) or industry/product characteristics (e.g. product uniqueness) (Cheon et al., 2007; Cavusgil et al., 1993, Sandler and Shani, 1992) are either not relevant or must be re-interpreted in a tourism-oriented context. Therefore, promotional channels adaptation primarily reflects context-specific considerations but serves

typical purposes such as brand awareness, location awareness, acknowledgement of product offers etc. However, the latter purposes go beyond the scope of this study since they refer to performance consequences of SA. Therefore, the contribution of the paper lies in the following emergent model (Figure 1) which, for the first time, aims to portray the simple, yet unexplored reality in a tourism-oriented Mediterranean country.

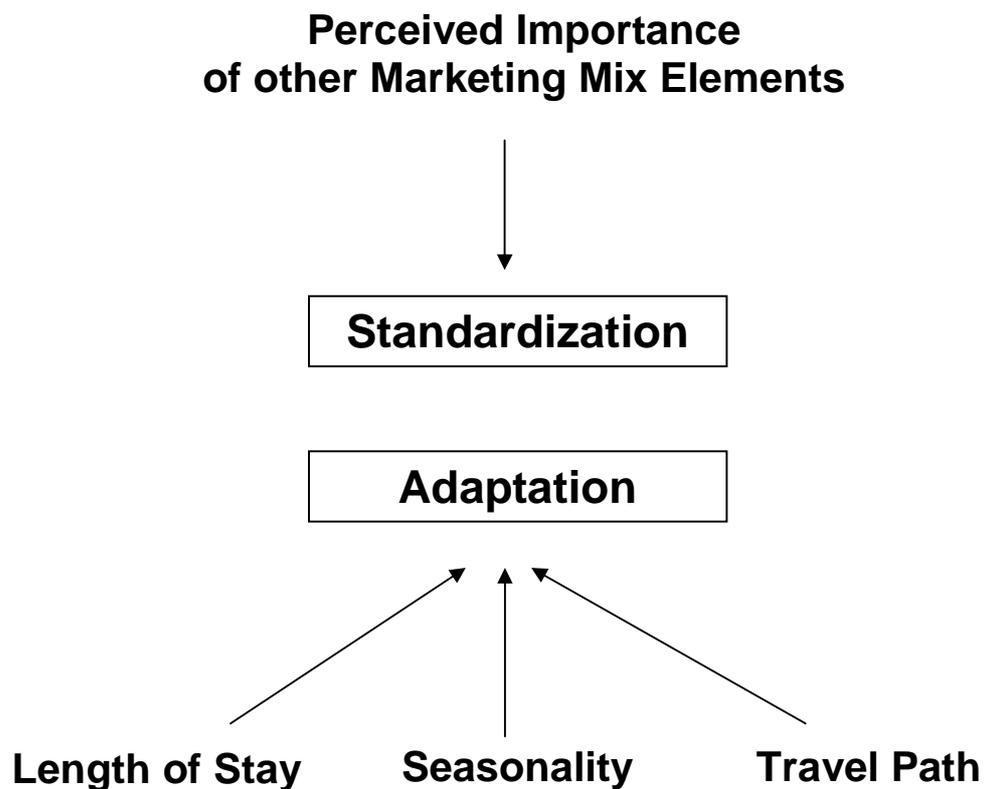


Figure 1: Standardization/Adaptation of promotional channels for FMCGs in a tourism-oriented market

On the one hand, FMCG firms in such contexts primarily standardize their promotional channels because they put more emphasis on adapting other elements such as distribution channels. On the other hand, firms choose to adapt their promotional channels to the idiosyncrasies of the tourist market because structural elements of the tourism reality in the country such as length of stay of tourists, seasonality of the tourism phenomenon and the distinct travel path of tourists necessitate such an approach.

CONTRIBUTION

We can say that the literature has identified many families of variables that affect SA promotional strategies by firms (e.g. product, competitive, organizational, infrastructure influences) with cultural forces being omnipresent (Okazaki et al., 2006; Harvey, 1993). Despite the prevalence of national heterogeneity in the context of this paper, though, cultural factors haven't influenced the decisions of firms towards promotional strategy-making. This is not to claim that cultural inducements do not influence promotional decisions towards either standardization or adaptation. The literature (e.g. Singh et al., 2005; Vrontis, 2003; Koudelova and Whitelock, 2001; Whitelock and Rey, 1998) has manifested this in a robust way across different product categories but it seems that, paradoxically, culture's influence becomes less relevant in a multicultural market as a result of international tourism. Instead, the collective identity of 'tourist' and his/her unique characteristics (as opposed to distinguishing between e.g. British, German, Scandinavians) are perceived by firms as more influential for the selection of promotional channels. These characteristics led to primarily adapted promotional strategies, an observation which agrees with prior findings in the literature that promotion is one of the most adapted elements of the marketing mix (e.g. Vrontis, 2003).

Therefore, what this study stresses is the strong relevance of local, context-specific variables for channel strategies in a tourism-oriented market. Authors such as Kanso and Nelson (2007) or Papavassiliou and Stathakopoulos (1997) have also stressed the influence of context on promotional decisions. Therefore, the co-alignment between promotional channels selection and an idiosyncratic environment seems to be a fundamental pursuit by firms in a market such as Greece's. Such an environmental isomorphism (Okazaki et al., 2007) posits that the external market environment is a principal driver of firms' conduct when it comes to the decision between standardization and adaptation. Indeed, the peculiarities of the Greek context support this isomorphism view, which is reflected in the previously presented model.

To the best of the authors' knowledge, this is the first paper which explains how and why FMCG firms deploy their promotional strategies in a tourism-induced market. This is particularly important for, at least, the following two reasons:

- on the one hand, annual global number of tourists is expected to reach 1.6 billion by 2020 (<http://www.unwto.org/facts/eng/vision.htm>, retrieved 8th of June 2009), making tourism one of the largest industries in the world
- on the other hand, the Euro-Mediterranean region is the largest recipient of these tourist inflows with countries such as France and Spain featuring as the most popular destinations on earth.

Therefore, any study that provides a deeper insight on how this consumer mobility affects the operations of firms that seemingly have nothing to do with the tourism industry per se are of increasing importance.

CONCLUSION, LIMITATIONS AND FURTHER RESEARCH

Apparently, the exploratory nature of our investigation does not allow any generalizations to be made. More research is needed across similar contexts and only by this way we will be able to draw some generalized conclusions on the causal relationships between factors and strategies

that work out in such a contextually idiosyncratic environment. For the time being, the outcomes of the current paper can be only utilized as a generic guideline for firms/researchers operating/investigating similar contexts and should not be seen in a prescriptive fashion. This is a serious limitation of the current study that must be taken into consideration by readers.

In this respect, a future study could investigate the developed propositions and measure causal relationships between SA strategies and factors informing them. Even more specifically, a large-scale survey conducted across countries with similar characteristics could yield more grounded insights that will counterbalance the inherent limitations of this effort. Contexts such as France, Spain, Portugal, Cyprus, Malta and even Mexico, Thailand and Malaysia are popular tourist destinations and several non-tourism-related firms are interested in how tourism affects their operations. Therefore, a cross-country investigation with a quantitative research design is a meaningful research path for the future.

Moreover, a future study could focus on other elements of the promotional mix such as the message that is used to position the FMCG firm in foreign consumers' minds. Perhaps, with regards to this element, the cultural heterogeneity of a tourism-oriented environment is more influential and dictates the positioning strategy of the firm. Additionally, the focus could be extended to other marketing mix elements such as price and distribution. It must be noted therefore, that the exclusion of product, price and distribution does not deny their significance in the marketing program of a firm. Actually, implications for the entire marketing mix were discussed during interviews with selected firms but the analytical focus of this study was on promotional media for reasons of conceptual clarity and because the SA debate is mostly associated with the more controllable elements of the marketing mix, namely product and promotion (e.g. Fastoso and Whitelock, 2007; Calantone et. al., 2006).

The vast majority of studies in the field of SA deal with these two elements whereas the focus on price and distribution SA strategies is still in its infancy (Waheeduzzaman and Dube, 2004; Theodosiou and Katsikeas, 2001). A reason for this literature focus is that product and promotional aspects are more easily prone to manipulation by firms and 'subject to greater modification' than the other elements (Cavusgil et al., 1993, p.485). On the other hand, pricing and distribution are mostly a result of the existing marketing, distribution and retailing infrastructure, over which firms have little or no influence (Terpstra and Sarathy, 1994). Thus, this study focuses on promotion strategies of firms in order to gain greater depth on established constructs which are, moreover, directly associated with the contextual idiosyncrasy of the market we described.

When such additional studies are conducted, and through a synthesis of different insights, we will be able to obtain a more holistic view on the unique characteristics of tourism-oriented markets. Especially for Mediterranean countries where these markets are dominant, such a synthesis promises managerially relevant and research-wise thoughtful results. We hope that the present effort opens an initial path for the better appreciation of the unique forces that come into play in these countries.

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¹ 2006 data are the latest, more accurate, available annual data with regards to international tourist arrivals by the time of this paper's submission.

THE IMPACT OF GREEK SKI CENTERS PRODUCT DIMENSIONS ON VISITORS' SATISFACTION LEVELS: A PRELIMINARY ANALYSIS.

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Purpose The aim of the current paper is to explore the impact of ski centers product dimensions on visitors' satisfaction levels.

Design/methodology/approach A total of 1608 usable questionnaires were selected in 11 ski resorts in Greece. The questionnaire used 50 ski center product attributes (variables) which influence visitors' satisfaction levels. These variables were the product of previous qualitative research which determined the product attributes of an ideal ski resort.

Findings Exploratory factor analysis revealed 7 significant product dimensions influencing visitors' satisfaction and intention to revisit.

Research limitations Results from this study may not be generalized in other countries ski centers such as Alpine or US centers.

Practical Implications Improvements to product attributes will help the marketing managers of ski centers increase customer satisfaction and intention to revisit.

Originality/Value The study provides insights from visitors in ski centers from a well known summer destination in the Mediterranean region where studies are limited.

Keywords Visitors satisfaction, Ski center product characteristics, Ski center, PCA, Greece

Paper Type Research Paper

INTRODUCTION

Satisfaction or dissatisfaction with a place, tourist destination or hospitality firm and the tourist product/service they offer are two of the possible outcomes of the tourist experience and have significant influence on tourists decision making for future vacations. In addition, visitors' satisfaction with a tourist destination has an impact on their intention to revisit them or recommend them to others (Alegre and Cladera, 2009, 2006; Um et al., 2006; Yoon and Uysal, 2005; Kozak, 2001; Baker and Crompton, 2000). If tourists are not fully satisfied with the quality of the services and products provided, it is highly unlikely that they will visit the same destination again. Pizam et al. (1978) in their pioneering study define tourist satisfaction as:

“the result of the interaction between a tourist's experience at the destination area and the expectation he had about that destination. When the weighted sum total of experiences compared to the expectations results in feelings of gratification, the tourist is satisfied; when the tourist's actual experience compared with his expectations result in feelings of displeasure, he is dissatisfied”.

The measurement of tourist satisfaction has become a major research topic in the tourism marketing field over the last forty years. This is because, firstly tourism has become an important economic sector for many regions or countries, secondly their is considerable

complexity in the differences in tourist perceptions and experiences of destinations, and, thirdly, because the measurement of tourist satisfaction can allow the those marketing a destination area, i.e., a ski resort, to monitor and improve its effectiveness and performance based on the needs of the tourist. (Piercy and Morgan, 1995). Thus tourist satisfaction with a destination has become a key indicator for the competitiveness and survival of regional tourist industries (Kozak, 2001; Kozak and Rimmington, 2000).

The main goal of the current study is to explore the impact of ski center product attributes on visitors' satisfaction. In particular, we have looked at the product attributes that most influence visitors' satisfaction level and have studied their implications for the management of ski centers. The Greek ski industry is in the early stages of development and is basically concerned with domestic tourism (Boniface and Cooper, 2005), since Greece is considered a popular destination for mass summer vacationing, especially the popular tourist destinations, (i.e., the islands). In addition, tourism policy issues were not prioritised by the local authorities of the less developed tourist destinations, (i.e., mountain areas) as well as by the government (Priporas and Kamenidou, 2003). However, ski centers could be the vehicle for economic development and prosperity for these regions (Andronikidis et al, 2006). A limited number of studies with reference to Greek ski centers have been made. Previous works have focused on visitor loyalty (Alexandris et al, 2005), visitors segmentation (Siomkos et al, 2006; Tsiotsou, 2006), visitors profiling and intention to re-visit (Drakou et al, 2005), and evaluation of ski center services (Masmanidis et al, 2006).

The rest of the paper is organised as follows. In the next section we review the literature regarding visitors' satisfaction with ski resorts. Subsequently, we describe the research methodology and discuss our findings. Finally, we conclude our paper with a summary, a discussion of the limitations of our approach and some directions for future research.

COMPONENTS OF ATTRIBUTE SATISFACTION

Destinations are mosaics comprising of inter-dependant components of attractions and support services such as natural scenery, accommodation, food, shopping, transport, events and many other features that are vital for the destination. Therefore, visitors' overall satisfaction with the destination experience may be a multidimensional, multi-attribute function of satisfactions with individual attributes of all the products/services that make up the experience (Hsu, 2003; Pizam & Ellis, 1999). Previous studies in various destinations (Wand and Qu, 2006; Deng et al, 2002, Laws, 1995) emphasized that satisfaction with several destination factors have the greatest impact on tourists' overall satisfaction, such as accommodation, tourist facilities, accessibility, the cost of vacation, etc.

Ski resorts, through their service infrastructure and destination environments, influence their visitors' perceptions, satisfaction and loyalty (Matzler et al., 2008). More particularly, in a ski resort the visitors' experience is influenced by:

- service infrastructure such as shopping services, recreational services και amusements, food, transportation, and lodging.
- destination environments, such as natural, political, technological, economical, environment, and socio-cultural environments

Usually the visitors' activities in the ski resorts referred to the following product characteristics in winter destinations (Weiermair and Fuchs, 1999, p.1005):

1. Food and Accommodation
2. Sports activities (other than skiing)
3. Animation and Culture
4. Transportation Aspects to and within the Resort
5. Skiing and Related Activities
6. Enjoyment of Nature and the Landscape (e.g., hiking)
7. Shopping Activities

Matzler et al (2007, p. 412) found that "seven factors (parties and fun, information, price-quality ratio, kids' slopes, well-being, slopes and accessibility) influence overall visitor satisfaction" and "overall satisfaction, in turn, is a strong predictor of loyalty". In another study of Clark and Maher (2007) the authors found that, "trust, commitment, *satisfaction*, past behavior, and value predict 60 percent of the variance in attitudinal visitor loyalty".

Matzler et al. (2005a) showed that customer satisfaction with a ski area varies between lifestyle segments. In this study, this stream of research on moderators in the attribute performance–overall satisfaction–loyalty chain is extended by three factors that are considered to be primarily important in winter sports tourism: lifestyle, spending levels and customers' skiing skills.

Weiermair and Fuchs (1999) adopted a multi-attribute model in exploring tourist satisfaction in Alpine ski resorts. They measured a range of quality dimensions such as aesthetics/appearance, security/safety, service orientation, variety/fun, and accessibility of service, in several domains of tourist activities; including food and accommodation, attractions, activities, shopping, and transportation. According to Faullant et al. (2008, p. 163): "ski resorts with the highest satisfaction ratings and the highest image ratings have the highest loyalty scores".

RESEARCH METHODOLOGY

Qualitative research

Qualitative research was utilized in 11 ski resorts. For the data collection an open-ended questionnaire was used with the assistance of trained interviewers who recorded the visitors' perceptions regarding an ideal ski center. Eventually 219 comments observations were recorded, where were categorized initially into 50 important product characteristics (variables). Afterwards the 50 variables were grouped in 7 product dimensions. Figure 1 gives a synopsis of the qualitative findings. Adequacy of facilities, visitors security and cleanliness, concentrated the majority of the observations. The qualitative research findings were used as a theoretical model for the quantitative research.

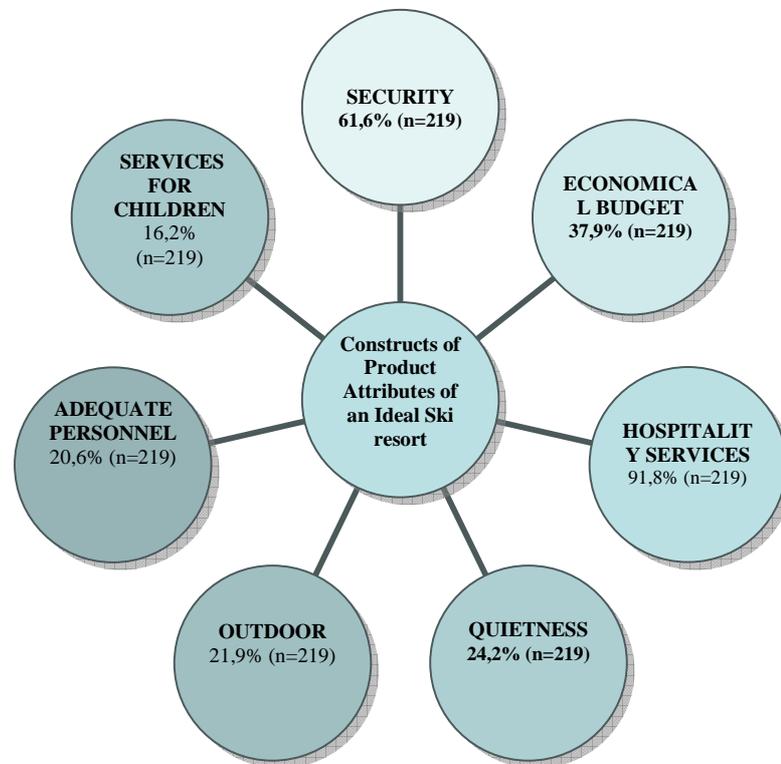


Figure 1. Theoretical Framework based on qualitative research findings. Source: Vassiliadis and Masmanidis, 2004. The figure was formulated by the current authors

Quantitative research

The data was collected by employing the convenience sampling technique at eleven ski resorts by using a self administered questionnaire from 8 to 18 March of 2009 by trained business administration undergraduate students. 1680 questionnaires were collected while 1608 were usable. Visitors were asked in a scale from 0% to 100% to grade the seven product dimensions. The findings are presented in Figure 2. “Economical Budget”, η “Security” και ο “Hospitality Services” are the most important dimensions.

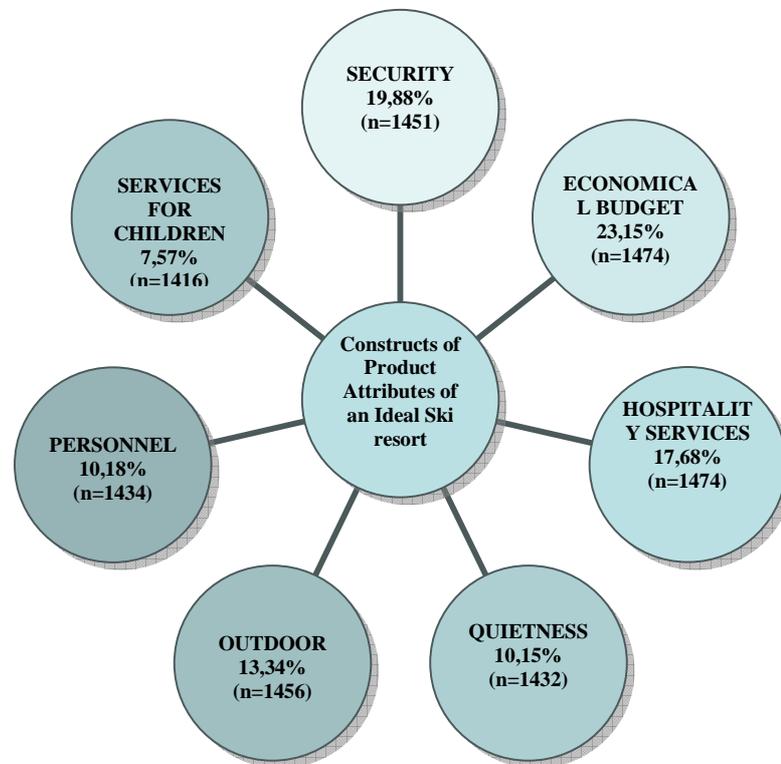


Figure 2. Quantitative analysis of the theoretical model of the 7 product dimensions

Next, the structure of the product characteristics through the fifty variables influencing the level of visitors' satisfaction and intention to revisit was explored. The variables were the result of the qualitative research. The main question in the questionnaire regarding the above variables was 'the level of my satisfaction and my intention to re-visit the ski resort are influenced by...'. The respondents expressed their level of agreement on a seven point scale from 1= 'disagree completely' to 7= 'agree completely'. Data analysis was undertaken in two steps: first we conducted an exploratory factor analysis and secondly we performed a parallel analysis. SPSS statistical software version 15 was used to analyze the findings.

DATA ANALYSIS

Sample demographics

The gender distribution of participant respondents was 51.5% males and 48.5% females. The mean age of the respondents was 31 years old. Regarding the education level, the majority of the respondents had a university degree (54.4%), 29% had a high school diploma, and 12.3% had a graduate degree. Referring to profession, 23.5.2% of respondents were students, 21.8% private employees, 17.8% freelance professionals and 16.8% public servants. Lastly, 368 respondents (24.9%) had monthly net income in their families of 1001-1500€, 21.7.9% of more than 2600€, 18.4% of 1501-2000€. and 14.3% had an income of 601-1000€. The majority of the participants

(45%) visited the ski resorts for the first time during the period 2001-2009 and 35.5% during the period 1991-2000. Finally, 866 participants (53.9%) visited the ski centres with friends, 478 (29.7%) with other members of their families, 13.8% with their girlfriend/boyfriend, and only 2.7% went alone.

<i>Demographic Variables (n=1608)</i>	<i>Frequencies</i>	<i>Ποσοστά</i>
<i>Ski resorts (V1)</i>		
<i>-Seli</i>	106	6,6%
<i>-Vigla</i>	60	3,7%
<i>-Vasilitsa</i>	153	9,5%
<i>3-5 Pigadia</i>	432	26,9%
<i>-Politses Metsovo</i>	59	3,7%
<i>-Elatochori</i>	90	5,6%
<i>-Vorras</i>	196	12,2%
<i>-Lailias</i>	97	6,0%
<i>-Parnassos</i>	120	7,5%
<i>-Pisoderi</i>	120	7,5%
<i>-Falakro</i>	175	10,9%
<i>Gender (V2)</i>		
<i>Male</i>	828	51,5%
<i>Female</i>	780	48,5%
<i>Age (V3) (Mean)</i>	31	
<i>Marital Status (V4)</i>		
<i>Single</i>	955	59,4%
<i>Married</i>	605	37,6%
<i>Separated</i>	33	2,1%
<i>Widower</i>	15	0,9%
<i>Educational Level (v5)</i>		
<i>Elementary education</i>	69	4,3%
<i>High School education</i>	466	29,0%
<i>University Degrees</i>	875	54,4%
<i>Postgraduate Degrees</i>	198	12,3%

<i>Monthly family income (V6)</i>		
<i>-600 Euro</i>	159	9,9%
<i>601-1000</i>	231	14,3%
<i>1001-1500</i>	368	22,8%
<i>1501-2000</i>	296	18,4%
<i>2001-2600</i>	204	12,7%
<i>More than 2600 Euro</i>	350	21,7%
<i>Occupation (V7)</i>		
<i>Private sector employee</i>	350	21,8%
<i>Senior executive</i>	78	4,9%
<i>Farmer</i>	32	2,0
<i>Public servant</i>	271	16,8%
<i>University student</i>	378	23,5%
<i>Freelance professional</i>	287	17,8%
<i>Unskilled laborer</i>	33	2,1%
<i>High school student</i>	99	6,1%
<i>Housewife</i>	48	3,0%
<i>Other (unemployed, retired, soldiers)</i>	32	2,0%
<i>Place of Residence (V8)</i>		
<i>Thessaloniki</i>	818	50,9%
<i>Athens</i>	182	11,3%
<i>Other</i>	608	37,8%
<i>First time visiting the ski resorts (V9)</i>		
<i>1930-1960</i>	3	0,2%
<i>1961-1970</i>	14	0,8%
<i>1971-1980</i>	69	4,3%
<i>1981-1990</i>	227	14,1%
<i>1991-2000</i>	571	35,5%
<i>2001-2009</i>	724	45%

<i>Accompanied visitation (V10)</i>		
<i>Alone</i>	43	2,7%
<i>With Friends</i>	866	53,9%
<i>With my girlfriend/boyfriend</i>	221	13,8%
<i>With other family members</i>	478	29,7%

Table 1. Samples demographic profile

Exploratory Factor Analysis

The method of Principal Component Analysis (Pallant, 2005; Tabachnick and Fidell, 2001) was used to define the underlying components of product attributes. Bartlett's test of sphericity was statistically significant ($p=.001<.05$) (Bartlett, 1954) while the Kaiser Meyer Olkin (KMO) test ($.962>.6$), showed that the data was highly qualified for this procedure (Kaiser, 1970; 1974). Both indices give us the capability to perform a good factor analysis (Tabachnick and Fidell, 2001).

Parallel Analysis

In order to get a more accurate definition of component number, parallel analysis was performed (Horn, 1965; Watkins, 2000). The comparison of PCA eigenvalues with the average eigenvalues of 100 random samples showed that the component number is equal to seven (components where the PCA eigenvalues exceed those of the random samples). Table 2 presents the parallel analysis outcome.

<i>Component number</i>	<i>PCA eigenvalue</i>	<i>Criterion value from parallel analysis</i>	<i>Decision</i>
1	18.043	1.3885	Accepted
2	2.784	1.3529	Accepted
3	2.198	1.3242	Accepted
4	1.811	1.3006	Accepted
5	1.565	1.2781	Accepted
6	1.434	1.2609	Accepted
7	1.342	1.2435	Accepted
8	1.120	1.2256	Rejected [..]

Table 2. Parallel Analysis results

The seven components from this comparison agree with the number of components in the theoretical model of the qualitative research. Next, by performing a factor analysis of the seven

components with oblimin direct and with deletion of factor loadings of less than .55, the results showed that the components are independent since the correlation index is less than .498 with minimum value the .011 (Table 4). The components can be named based on the variables with the highest loadings (Table 3).

The first component interprets 36.09% of the total variance and is composed of five items: "existence of experienced and specialized personnel" (PER5), την "possibility of fast and suitable service in the ski resorts facilities" (PER6), "fast service at the lifts" (PER7), "existence of friendly and pleasant personnel (PER4), and "existence of personnel for ski slopes check" (PER 3). This component could be named "*Adequate Personnel*".

The second component interprets 5.57% of the total variance and is composed of five variables: «economical prices for equipment rental" (ECONI3), «lift tickets in affordable prices" (ECONI5), «Low cost and affordable prices in the ski center. (ECON11), "existence of low budget packages for special groups (i.e., students) (ECONI2), and "lunch available at affordable prices" (ECONI4). The second component could be labeled "*Economical (Affordable) Budget*".

The third component interprets 4.39% of the total variance and is composed of four items which referred mainly to children's services: "existence of ski slopes for children" (SKSL6), "existence of sufficient and suitable lifts in the children ski slopes (LIFT3), "existence of playgrounds for children" (FACIL4), and "existence of personnel for children's activities (PERS1). This component could be named "*Services for Children*".

The fourth component interprets 3.62% of the total variance and is composed by services variables regarding lodging, entertainment, and relaxation> More particular: "possibility of overnight stay (ACOM1), "entertainment possibilities in open areas and closed halls" (ENT1), "existence of accommodation facilities in near by distance" (ACOM3), "existence of sufficient available chalets to cover various needs"(ACOM2), and "existence of spa facilities for relaxation" (FACIL3), "existence of food courts" (FACIL1), "shopping opportunities (retailing stores) (FACIL2). This component is named "*Hospitality Services*".

The fifth component interprets 3.13% of the total variance and is composed of three items: "safe facilities for visitors in the ski slopes" (SECUR2), "existence of first aid center for medical care in the ski center (SECUR1) and "cleanliness and hygiene in the accommodation and food courts" (SECUR3). This component was labeled "*Security*".

The sixth component interprets 2.87% of the total variance is composed by two spatial items "near by parking" (P2), "variety of ski slopes"(SKSL4). This component could be labeled "*Suitable Outdoors* ».

Finally, the seventh component interprets 2.68% of the total variance and is composed by one item, "Existence of Quietness".

<i>Variables</i>	<i>COMPONENT†</i>						
	<i>Adequate Personnel</i>	<i>Economical (Affordable) budget</i>	<i>Services for Children</i>	<i>Hospitality Services</i>	<i>Security</i>	<i>Adequate Outdoor Premises</i>	<i>Quietness</i>
<i>PERS5</i>	.768						
<i>PERS6</i>	.748						
<i>PERS7</i>	.706						
<i>PERS4</i>	.699						
<i>PERS3</i>	.673						
<i>ECONI3</i>		.828					
<i>ECONI5</i>		.774					
<i>ECONI1</i>		.769					
<i>ECONI2</i>		.718					
<i>ECONI4</i>		.690					
<i>SKSL6</i>			.796				
<i>LIFT3</i>			.779				
<i>FACIL4</i>			.667				
<i>PERS1</i>			.648				
<i>SKSL1</i>			.565				
<i>FACIL5</i>			.551				
<i>ACOM1</i>				.761			
<i>ENT1</i>				.747			
<i>ACOM3</i>				.722			
<i>ACOM2</i>				.714			
<i>FACIL3</i>				.623			
<i>FACIL1</i>				.592			
<i>FACIL2</i>				.583			
<i>SECUR2</i>					-.673		
<i>SECUR1</i>					-.659		
<i>SECUR3</i>					-.653		
<i>P2</i>						.634	
<i>SKSL2</i>						.569	

SKSL4						.551	
ENVIR2							.626
% variance explained:	36.09	5.57	4.39	3.62	3.13	2.87	2.68
Total variance explained:= 58.35%							

Table 3. Pattern Matrix(a) (factor loadings above .55)

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

Rotation converged in 15 iterations.

Component	1	2	3	4	5	6	7
1	1.000	.382	.393	.498	-.203	.396	.128
2	.382	1.000	.324	.363	-.187	.324	.011
3	.393	.324	1.000	.427	-.042	.224	.108
4	.498	.363	.427	1.000	-.109	.302	.153
5	-.203	-.187	-.042	-.109	1.000	-.208	.011
6	.396	.324	.224	.302	-.208	1.000	.088
7	.128	.011	.108	.153	-.011	.088	1.00

Table 4. Component Correlation Matrix

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

CONCLUSIONS

It is vital to identify and measure tourists' satisfaction with individual components since visitors' satisfaction with the components leads to their overall satisfaction with the destination (Pizam et al., 1978). An exploration of each attribute's impact on visitor satisfaction and their intention to re-visit helps identify the strengths and weaknesses of a destination at individual levels. Satisfied tourists are more likely to return and become loyal, which leads to the destination's long-term economic success (Kozak, 2001; Kozak and Rimmington).

According to the participants in this study, the most significant product attributes that influence their level of satisfaction and their intention to re-visit can be organised into seven different categories. These are: "Adequate Personnel", "Economical Budget", "Services for Children", "Hospitality Services", "Security", "Suitable Outdoor" and "Quietness". Specifically the product dimensions, "Economical Budget", "Security" and "Services for Children",

“Hospitality Services”, and «Outdoor” were considered to be more important as shown in Figure 2. Because of their significance the ski resorts management should pay attention to these components in improving their product in order to remain competitive and to attract new visitors, as well as to increase re-visitation.

Although our findings extend our knowledge about satisfaction and intention to re-visit ski resorts, there are some unavoidable limitations. The instrument was validated by collecting data from ski resorts in Greece. Further research from different ski resorts in other countries should confirm the relevance of the current findings. Also, future research should include a factor analysis to confirm the adequacy of these seven components of product attributes in influencing visitors’ satisfaction and intention to re-visit. Finally, person-related factors (i.e., gender) can be used in investigating the similarities and differences of the product dimension and their impact on satisfaction and re-visitation.

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TRADITIONAL VALUES AND POSTMODERN CHALLENGES OF CULTURAL TOURISM- THE EXAMPLE OF THE DALMATIAN COUNTY IN CROATIA

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The Subject of this study is cultural tourism and cultural tourism experience in Dalmatian area in Croatia, in the context of postmodern philosophy of adventure/ experience travel. Cultural tourism has traditionally been a powerful motive in trips because of visiting historical cities, monuments, museums or kinds of festivals. More than a third of all international travel includes a kind of cultural activities which is why it is important to attract the attention of tourists in the areas that have many cultural attraction such as cities of Dalmatia County. The aim of this paper is a presentation of scientific the results of empirical research conducted in July and August 2007, in Zadar, Šibensko-Krinska and Splitsko-dalmatinska Counties by a method on a sample survey of 1346 tourists. The questionnaire consisted of 48 questions, open and closed, and some of the questions were set in order to explore the offer of cultural resources. The results showed that the cultural tourist offer should be accessed an insufficiently used possibility for the developing of Croatian tourism and that it is necessary to create a new strategy with regard to today's modern tourism. It is important to take into account generational, educational and material differences as determinants in defining the guidelines and initiatives of cultural tourism and that the targeted offers are not limited element. The conclusion is that there is a large and under used opportunity for the development of cultural tourism in the entire tourist offer of Dalmatian counties.

Keywords: tradition, cultural tourism, Croatia, Dalmatian Counties, strategy for tourism development

INTRODUCTION

Groups of tourists motivated by the need to meet and understand more thoroughly the tradition and culture, cultural heritage and the places they visit, are synonymous with the term used for the phenomena of cultural tourism.

According to the World Tourist Organization, 37 percent of all international travels include some sort of cultural activity, while according to other sources it is considered that up to 70 percent of international travels may be included in this category (Richards 1996; McKercher and du Cros 2002, in Antolović, 1999).

Cultural tourism is a growing sector in Croatia (Jelinčić, 2009). The media's as well as the state's interest in this area is growing. Development of cultural tourism is mentioned in a strategic document of the Ministry of Tourism (2003) „From Tourism and Culture to Cultural Tourism: Cultural Development Strategy“. However, according to some conducted scientific research, the cooperation with the state institutions is still not sufficiently developed and there is a recorded lack of coordination between the sectors of culture and tourism.

Cultural tourism is hard to define given that both culture and tourism are complex and dynamic terms. The prevailing opinion is that there is no particular, specific definition of cultural tourism. In the terminological sense both expressions „heritage tourism“ and „tourism of cultural heritage“ are used. All terms nevertheless share the same responsibility, which is introducing the tourist to what makes the city, region or state different and interesting, regardless of whether it is art, culture, history or all together.

Cultural tourism is a practice that involves intersectoral collaboration of culture and tourism and in contemporary trends it includes other development practices that are functionally integrated (Ljumović, 2009 in: Jelinčić, 2009: 93).

Cultural tourism is therefore, unlike other types of special interest tourisms, complex given that it implies collaboration of multiple sectors and a wide range of activities. Quality cultural-touristic offer demands a successful collaboration of experts in the area of culture and those in the area of tourism, although these two areas are often presented as very different and the former directed towards profit, and the latter towards common good of protection and promotion of traditional values.

The concept of cultural tourism is based on the basic presumption according to which there is no involvement in culture as a process but culture is used as a product. Culture as a product makes a large supply of touristic offer. The authors suggest that such supplies may include: monuments (sacred monuments, public, historical buildings, castles and palaces, parks and gardens, forts, archeological areas, industrial-archaeological buildings), museums (historical, folklore, art museums, industrial), routes (culture-historical routes, art routes), entertainment centers (culture-historical centers, archeological, architectonic, musical), cultural-historical events (religious celebrations and pilgrimages, secular festivals, folklore festivals), artistic events and art exhibitions (Pančić Kombol, 2000: 32)

Some areas and events are considered especially interesting and attractive for the development of cultural tourism, for example archaeological areas, architecture (ruins, well-known buildings, whole cities), museums, art, sculptures, crafts, galleries, festivals, various events, music and dance (classical, folklore and contemporary), drama, theater, film, language and literary studies (tours and events), religious celebrations and pilgrimages, overall (folk and primitive) culture and subculture and in this sense in the world there is a number of cultural touristic offers such as archaeological sites, sacred monuments, museum spaces, galleries and preserved urban units.

CULTURE AND CULTURAL TOURISM

Culture

The development of new communication possibilities, new technologies and informatization and various processes of globalization in tourism create specific characteristics of contemporary tourism of the postmodern era, specific values and way of life, specific culture of travelling and specific customs.

Culture is a complex entity based on the organizational concept of broad-spectrum “way of life” believes Richards (1996: 226) which includes the behavior, production and beliefs of people. Culture does that what people think (attitudes, belief, ideas and values), make (art works, artifacts, cultural products) (Littrell, 1997: 107, in Jelinčić 2008: 31). Culture is achieved in processes (ideas and life styles of people) and products of those processes (buildings, artifacts, art, customs, “atmosphere”)

Culture is therefore characterized by the entirety of knowledge, standards and values which the community feels as its way of life and uses to introduce itself to another community with which it comes in contact. It includes and represents the behavior of the community members and the spiritual and material products created by their actions. It is a process and is subject to change in circumstances when different groups are confronted, and then try to reconcile their own standards of meaning and values with standards of the other group (Jelinčić 2008: 30).

According to the above mentioned, culture is seen as the way of life of certain people or social group and has distinctive characteristics and systems of meaning. It can be said that culture includes all forms of social activity as well as artistic and intellectual activity.

Culture is made by processes, ideas and ways of life, as well as the products of those processes, believes Richards (2001: 32). Kilday (2000: 56) defines culture as: 1. All inherited ideas, beliefs, values and knowledge which provide the basis for the development and actions of the community; 2. Specific ideas, interests and activities of people; 3. particular civilization at a certain period; 4. Artistic and social activities, expressions and preferences of society; 5. Education and refinement arising from the previously said.

Culture refers to the set of values, beliefs, behavior, symbols, (e.g. tradition, customs, clothing and arts) and forms of learned behavior of the local community. It can also be defined as the “way of life” that the society shares, which is transferred from generation to generation and for which it is considered to be typical for a certain social group (Jelinčić, 2008: 26). It includes unique natural, historical and cultural accomplishments of a certain area and the people living in it, which are remembered or preserved so that the present and future generations could experience them (Mak prema Metelka, 1999: 2)

If culture is studied and defined in the context of tourism, it is necessary to set the focus on socio-cultural aspects. Therefore, all participants who appear in cultural tourism should be considered.

Touristic culture

Several social categories are included in the cultural contact of touristic space. We can emphasize the local population and its culture, tourists and touristic culture (shared by most tourists), residual culture (unique for each tourist market), tourism workers (that provide services to tourists and work as individuals between the local and visiting population), their managerial and business culture etc. (Brown 1990: 80).

In tourism people and cultures intertwine with forms and forces characteristic to each individual local community, and a better understanding of these cultures will lead us to understanding tourism as a factor of change in the community itself, but also beyond it.

Discussions about the local culture are often conducted over which one of these two are winning or how they are affecting one another. However, both local and touristic culture are best observed regarding the residual culture, which can, in that case, explain how tourists from different cultures behave in different ways (Jafari, 1987: 152).

The behavior of all participants in the touristic process is what literature often denotes with the term touristic culture. A tourist will before, during and after a trip behave in accordance with touristic culture.

Culture can therefore, in relation to the term "tourism", be defined as the totality of material and spiritual values in the area of tourism and the level of man's knowledge of these results, which includes in itself views, relations, risks, behavior of people, whether tourist, whether holders of tourist services of all kinds (Vizjak, prema Ravkin, 1999: 292).

Tourism with its multiple opportunities for contact provides huge possibilities for enactment of cultural processes and for the invention of new forms of cultural expression (Chambers, 1997: 3). Culture-related tourism, accordingly, can't mean only tour of the material forms of culture, but also includes exploring ways of life in a certain destination.

Cultural tourism

In general, cultural tourism is a form of tourism which is dominated by interest and demand for objects and activities of cultural value (Vukonić and Čavlek, 2001: 167).

However, there are multiple definitions of cultural tourism, and the difficulties in defining that term arise from the difficulties and the complexity of defining the term culture.

The World Tourist Organization (UNWTO, 1985) defined cultural tourism as travels motivated by culture such as study, theatrical and cultural tours, trips to festival and similar events, visits to historic sites and monuments, trips in order to study nature, folklore or art and pilgrimages.

Spilberbeg (1995: 362) defines cultural tourism as persons travelling outside their permanent place of residence, motivated entirely or partly by their interest for the historical, artistic or scientific heritage of a social community, region or institution. These definitions indicate that the basic element that distinguishes cultural from other tourists is motivation.

Another group of authors suggested a definition from the standpoint of visitors during their stay in a destination.

Thus Stebbins (1996: 949) defines cultural tourism as tourism based on the demand for participation in new and deep cultural experiences that can be of aesthetic, emotional, intellectual or psychological nature. Brokensha and Guldberg (1992:24) defined cultural tourism as trips of individuals who want to meet the local population, learn about their culture and life, who go on trips in order to get education and spread their horizons, visit cultural events, intensively travel to experience the richness of cultural and natural attractions, and are in search of authentic, informed, quality experiences in which they actively engage. However, these definitions are criticized as so comprehensive that almost everything everywhere becomes a

cultural product, and almost all tourists become cultural tourists (Craik 1995: 92; Hugens 1996: 708).

According to The International Council on Monuments and Sites –ICOMOS (1996) “cultural tourism is a broad term for many people and in it lies its strengths and weaknesses.”

Numerous definitions of cultural tourism can be grouped in four categories: definition derived from tourism as a concept, definition that proceeds from the travel motif, from experience and organization. “Cultural tourism involves four elements: 1. Tourism; 2. Use of cultural heritage assets; 3. Consumption of experiences and products; 4. The tourist.” as considered by McKercher and Du Cros (2002: 7-9).

The definition of cultural tourism is derived from the term of tourism. Through it, cultural tourism is recognized as a form of special interest of tourists, where culture is the basis for attracting tourists or a motivating element for people to travel (McIntosh and Goeldner 1990; Zeppel 1992; Ap 1999).

Some theorists contextualize cultural tourism from a business perspective, as involvement of development and marketing of different cities or attractions for foreign as well as domestic tourists (Goodrich 1997).

For better research and planning of the development of cultural tourism a technical definition of cultural tourism is introduced (Tomljenović 2006: 124). With a technical definition, the activities considered as a part of cultural tourism, and which are a reflection of the cultural resources of a particular area, are specified. So, for example, for the purposes of planning cultural tourism in Canada (Lord 1993: 37) institutions (museums, galleries, historical sites, theaters, concert halls etc.) are differed from heritage and way of life (historical towns and quarters, monuments, customs, language, gastronomy) as well as from events (festivals, fairs, exhibitions, competitions).

In Europe, the double definition of the European Association for Tourism and Leisure Education (ATLAS), which conducts researches of cultural tourism in Europe for the European Union, usually applies.

The conceptual definition includes motivational and elements of experience so it defines cultural tourism as all travel that includes visiting cultural attractions outside the permanent place of residence with the aim of acquiring new knowledge and experiences which meet the cultural needs of an individual.

According to the technical definition “cultural tourist travel is all travel which includes visiting specific cultural attractions, from historic sites to art and cultural manifestations, to visiting museums and theaters, outside the permanent place of residence” (Tomljenović 2006: 128).

In Strategy Development in Cultural Tourism of Croatia cultural tourism is defined from the motivational point of view and within the framework of existing legislation, which defines culture as tangible culture (museums, galleries, concerts, theatres, monuments and historic sites) and intangible culture such as customs and tradition (Tomljenović et. al., 2003: 18).

According to the same source, the technical approach defines cultural tourism through visits to cultural-historical sites, museums, galleries, art exhibitions and exhibitions of applied arts, operas, musicals, ballet and contemporary dance, theaters, festivals (of music and film) and concerts of popular music.

According to Nuryanti, tourism related to culture and cultural heritage allow describing the past in the present. Today, the developed world countries have taken almost the maximum advantage of their cultural heritage in the tourism industry and have invested great effort in its understanding.

Less developed countries, that still live in a world of tradition, religion, superstition, in a world far from modern, possess great potential to be discovered as a source of symbols and new interpretations" (Nuryanti 1996: 251).

In its beginning cultural tourism was considered a market niche, therefore an offer that completes the basic offer. Today it still often has this role, in terms of offering additional content to extend the stay of tourist in a particular destination, or to enrich their stay with a quality program. However, except being a market niche, cultural tourism can also be the basic offering of a destination.

"Certain destinations often have no large tourist resources that could serve as a basis for the development of mass tourism, so they resorted to the creation of a small but authentic tourism product connected to the culture and thus create the image and identity of destinations." (Jenkins & Jones, 2002: 160).

Croatia, following the European trends, has a possibility of developing cultural tourism in two ways: in addition to mass tourism in coastal destinations, where cultural tourism has the role of a market niche, and also as a basic offer, especially in continental destinations and coastal hinterland.

In the context of Croatia the Dalmatian region, with respect to their resource base of cultural tourism, has special possibilities in the evaluation of cultural tourism in the total tourist offer and its efficiency on the tourism of Dalmatia.

The Offer of Cultural Tourism

Culture is one of the main elements of tourism products and the basis of tourist offers. Considering that tourism has always attracted visitors with a unique atmosphere, cultural-historical monuments, dynamic scenes of life on the streets, festivals and carnivals (Boissevain, 1996: 25), and tourist have always been interested in gaining insight into material and immaterial (norms, values, ideology) forms of culture (Kelly and Dixon, 1991; 26), cultural tourism is increasingly becoming a more important element of the tourist offers of a particular area.

After the competition intensified the development of new tourist areas that have, in order to revitalize its economic recession, and in the absence of natural attractions, those destinations have also turned towards the development of cultural tourism (Tomljenović 2003: 16).

In the process of planning cultural tourism the characteristics of the offers regarding cultural tourism should be taken into account, Tomljenović highlights (2006) and adds that the increase in offers is caused by the simultaneous actions of several factors: a) an accelerated process of reconstruction and creating the image of cities where culture is used as the main mechanism of revitalization and improvement of image; b) changes in the financing system of the cultural sector where funding from the budget is reduced and is expected from institutions in culture to increase self-financing c) The more intensive competition on the tourism market where cultural offers of sites is used as means of creating an unique image of the destination and is competitive advantage (2006: 133).

Cities have since the beginning of the 1990ies embraced tourism as means of economical development, supporting the thesis that the effects of tourism are much wider than the economic effects generated by the tourist demand. By investing in the tourist infrastructure and converting districts in attractive areas they not only attract visitors but also create a positive image of the city with which they retain the existing and attract new economic entities and improve the service sector on which their economy is based.

The development of tourism inevitably includes the development of cultural offering, as considered by Law (2002) and Cameron (1991). Seeing the cultural sector is faced with the increasingly modest financing from the state budget and is forced to turn to alternative funding sources - the sponsorships of the private sector and attracting a larger number of visitors, so culture and art are more frequently interpreted as generators of economic activity or means of economic development (Cameron 1991; Garrod and Fyall 2000).

A large number of traditional vacation travels also include culture in a wider sense. Forms of offers in cultural tourism are different. Cultural resources and activities are elements of the offering and products in cultural tourism, offered on the market in the travel arrangements of tour-operators or directly from those who create the cultural offering.

As considered by Vukonić and Čavlek (2001: 167), cultural-historical tourism resources are preserved remains of past civilizations and their technological achievements, monuments and certain objects, urban integrities, artistic achievements in sculpture, painting and other fields of art visited by tourists.

According to the classification above, the resource base of cultural tourism in the areas of Zadar, Šibenik-Knin and Split-Dalmatian is rich and diverse. For the purpose of illustration: the Church of St. Donat, the collection of gold and silver of the city of Zadar, the Archeological Museum of Zadar, the Cathedral in Šibenik (UNESCO), the city of Trogir (UNESCO), Salona, the Diocletian palace (UNESCO), Hvarski ager (UNESCO), Sinjska alka, the Meštrović gallery and numerous other sites, attractions and events present exceptional potential and make an element of the cultural offering in tourism of these areas.

The diversity of the resource base of cultural tourism with its numerous variations and possibilities to transform into and offering of cultural tourism give significant possibility to become and even more important element of the offers in tourism on the areas of Zadar, Šibenik-Knin and Split-Dalmatian County.

PHYSICAL AND TOURIST MEANING OF RESEARCH AREAS IN CROATIA

A relevant research has been conducted in the area of Zadar, Šibensko-Knin and Split-Dalmatia counties. For a better insight into the physical and tourist meaning of these three counties, basic information regarding space, accommodation and tourist traffic is presented.

Zadar County

The county of Zadar stretches on the surface of 3.638 kilometres and makes 14% of the total surface of the Republic of Croatia. The length of the coast is 1300 km, in which the coasts of 365 islands are included. 162.045 habitants live in the county's area. The accommodation capacities of the County of Zadar are: hotels and tourist resorts 11,476 beds, camps 21,524 places, private accommodation 52,893 beds and 3,402 moorings in nautical tourism.

In the year 2007, 1,114,454 tourists have visited the Zadar County (10 % of Croatia), of which 876,159 were foreign. In the same period a total of 6,789,053 overnight stays were realized (11% of Croatia) of which 5,031,302 were realized by foreign tourists.

Šibenik-Knin County

The Šibenik-Knin County comprises a total surface of 5,670 square kilometres, of which 2.994 square kilometres is land surface. In the county area there are 112,891 habitants. The accommodation capacities of the county are: 8,200 beds in hotels, 48,000 beds in private accommodation, 12,400 places in camps and 300 moorings in nautical tourism.

In 2007 the county was visited by a total of 820,002 tourists (8% of Croatia), of which 682,758 were foreign tourists. In the same period there were 4,022,697 overnight stays (8% of Croatia), of which 3,453,556 were realized by foreign tourists.

Split-Dalmatia County

The Split-Dalmatia County is the largest Croatian county with a total surface of 14,045 square kilometres, of which 4.572 square kilometres is land. On the surface of the county there are 463,676 residents. The accommodation capacities of the county are: hotels and tourist resorts 24,820 beds, 12,926 camp places, 97,119 beds in private accommodation and 1250 moorings in nautical tourism.

In 2007 the Split-Dalmatia County was visited by a total of 1,656,343 tourists (16% of Croatia) of which 1,441,497 were foreign tourists. In the same period a total of 9,144,594 overnight stays were realized (17% of Croatia) of which 8,213,470 were realized by foreign tourists.

RESEARCH METHODOLOGY

The research was conducted through field testing surveys during May-September of 2007 in the areas of Zadar, Šibenik-Knin and Split-Dalmatia counties. For research purposes a survey of 48 questions (closed and open type) was used. The survey was translated into English, Italian and German.

In the first part of the survey socio-demographic data were requested (sex, age, education, marital status, number and age of children on vacation, average monthly income of the family in Euros, frequency of visits to Croatia, season in which they spend their holidays, planned duration of vacation and whether the vacation was in individual or organized form).

Other questions were grouped according to the following topics: arrival and accommodation, way of informing on the tourist destination, motivation, tradition and culture, gastronomy, friendship and hospitality, personal evaluation, the destination in general.

The research was conducted on the sample of 1346 interviewed tourists. Foreign tourists constitute 93% of the sample or 1249 persons and 93 or 7% of tourists were domestic. 636 (47%) tourists were male, and 710 (53%) were female.

37% of the total sample was tourists interviewed on the area of the Zadar County, 25 % in the area of the Šibenik-Knin County and 38 % in the area of the Split-Dalmatia County.

43% of the interviewed tourists were in the age of 18-30, 33% were in the age of 31-45, 20% in the age of 46-60 and 4% were above the age of 60.

41% of the interviewed tourists have a secondary education and 48% have a higher education. 52% were not married and 61% were without children.

24% of the interviewed tourists had the average monthly income less than 2000 Euros, and 22% more than 2000 Euros. 39% have visited the destination for the first time, but 22% of the interviewed tourists visit the same destination every year. 78% of tourists visit solely during the summer and 60% of the participants in the survey spend an average of 8-15 days on the destination. 66% of the interviewed tourists come in their personal (individual) arrangement.

RESULTS

According to the questions given in the survey, quantified results based on the answers of the participants in the survey are listed.

Motif of the visit

The strongest motif for visiting Zadarska, Šibensko-kninska and Splitsko-dalmatinska counties is the absence of pollution of the environment and the clear sea with an average rating of 4.3. The motif of visit-friendship with a local is rated with 3,7; proximity of the destination with 3.6; cost of stay with 3.5 and the possibility of doing sports and healthy living with 3.4.

Art and cultural contents as a motif of visiting have been rated with an average rating of 3.5; which is almost one value unit less than the strongest motif of visiting the area where the survey was conducted.

According to the structure of the sample, when the motif of visit is in question, artistic and cultural content is especially important to the tourists with completed postgraduate studies (24.2%) and unimportant to tourists with finished elementary school (16.6%).

There is also a difference in the average monthly incomes: the tourists with larger incomes, more specifically those with incomes larger than 6000 Euros (27%) consider artistic and cultural contents an important motif of their visit in contrary to the tourists whose incomes are less than 2000 Euros (11.8%) and consider that contents of these types are not a motif of their visit.

Visiting cultural sights and monuments during summer vacation

<i>How many cultural sights and monuments did you visit during your stay?</i>								
	<i>n=</i>	<i>s %</i>	<i>All I heard of</i>	<i>Most I heard of</i>	<i>A few I heard of</i>	<i>none, not interested</i>	<i>DK/NA</i>	<i>sig.hk</i>
<i>Country</i>	1346	100	13.2	28.4	43.3	14.7	.2	,01
<i>Croatian tourists</i>	97	7.2	16.4	25.7	32.9	23.7	1	
<i>All other tourists</i>	1249	92.7	12.9	28.6	44.1	14	.1	

Table 1. How many cultural sights and monuments did you visit during your stay

According to the results of the survey the number of those who are very satisfied and those who consider that it could be a little bit better is equal. In the group of foreigners 80% of tourists fall into this category, and those much more critical make 10%.

Men and women differ when visiting cultural monuments during summer vacation; women visit most monuments they have heard of (32.3 %), while men visit a few of those they have heard of (46.6%). Furthermore, tourists with high education (17.7%) above average more frequently visit monuments they have heard of, while tourists with secondary education do not visit any monuments because they are not interested in this area of tourism. An interesting fact is that divorced tourists (22.5%) are significantly more frequent in visiting monuments, all they have heard of, in contrary to the unmarried tourists (18.8%) that do not visit monuments because they are not interested.

Information on the traditions and culture of Croatia

<i>Were you informed enough about culture and tradition of Croatia during your stay?</i>							
	<i>n=</i>	<i>s %</i>	<i>I'm very satisfied with provided information</i>	<i>it's good, but it could have been better</i>	<i>I feel deprived because I wasn't informed enough about it during my stay</i>	<i>not interested in it when on holiday</i>	<i>sig .hk</i>
<i>Country</i>	1344	100	40.5	36	9	14.2	,06
<i>Croatian tourists</i>	96	7.1	32.2	37.5	7.2	.9	
<i>all other tourists</i>	1248	92.8	41.1	35.9	9.2	13.6	

Table 2. *Were you informed enough about culture and tradition of Croatia during your stay*

During their stay in Croatia, gaining information on the tradition and culture of Croatia was not in the field of interest of the younger (18-30) respondents (16.8%), while older tourists, over 60 years of age, 55% of them, are very satisfied with the received information. Furthermore, when it comes to education, it has proved to be statistically significant that tourists with elementary (23.8%) and high-school education (18.7) are not interested in the tradition and culture of Croatia while on vacation. Also, when it comes to the marital status of tourists, those who are married (44.2%) are very satisfied with the received information, in contrary to those that are not married (16.8%) who are not interested in that kind of information.

Description of monuments and cultural sights in brochures and guides

<i>. Are historical monuments and cultural sights well described in leaflets and guide-books, and appropriately marked on respective buildings?</i>							
	<i>n=</i>	<i>s %</i>	<i>well and interesting</i>	<i>. well enough, but it could be better</i>	<i>not attractive enough for anyone interested</i>	<i>don't know; not interested in monuments and cultural sights</i>	<i>sig.h k</i>
<i>Country</i>	1345	100	38.3	36.9	7.3	17.3	,00
<i>Croatian tourists</i>	97	7.2	22.6	36	11.3	.8	
<i>all other tourists</i>	1248	92.7	39.5	37	7	16.3	

Table 3. Are historical monuments and cultural sights well described in leaflets and guide-books, and appropriately marked on respective buildings

There is a significant difference between men and women when it comes to the description of monuments and cultural objects in brochures and guides. Women (41.3%) consider that they are adequately described, while men (19.4%) are not interested in these matters on vacation. Furthermore, there is also a considerable difference in age. Older tourist, over 60 years of age, consider that they are adequately described, as well as tourists in the age of 31-45 (42.1%). Younger tourists, 18-30 years of age, 21.5% of them, say that monuments and cultural sights are not in their field of interest while on vacation. When it comes to education, it has been proved statistically significant that tourists with elementary school education (34.1%) and high-school education (22%) are not interested in monuments and cultural sights, in contrary to tourists with higher education (39.5%) and are of opinion that they are adequately described, although they could be described better.

Also, when marital status is in question, those who are married (41.7%) consider that they are adequately described, in contrary to those who are not married (21%) who are not interested in this type of information while on vacation.

Availability of cultural sights in the city

<i>Were historical monuments and cultural sights accessible enough for seeing and visiting?</i>							
	<i>n=</i>	<i>s %</i>	<i>accessible in proper time</i>	<i>. accessible but always in improper time</i>	<i>not accessible enough</i>	<i>don't know; not interested in seeing historical monuments and cultural sights</i>	<i>sig.hk</i>
<i>Country</i>	1346	100	58.2	14.2	8.4	19	,00
<i>Croatian tourists</i>	97	7.2	43.2	12.3	.5	25.7	
<i>all other tourists</i>	1249	92.7	59.4	14.4	7.6	18.4	<i>w1</i>

Table 4. Were historical monuments and cultural sights accessible enough for seeing and visiting

The results show that a relatively high number (22%) of tourists considers that monuments are available in the wrong time or are not available enough.

Men are not interested in cultural sightseeing (21,8%). Age has shown to be a significant indicator; younger (18-30) tourists (22, 7%) do not show interest in cultural sightseeing while older tourists (46-60, 63% of them) consider them to be available in the right time. When it comes to education, it was proven statistically significant that tourists with elementary (28,5%) and high-school education (23,3%) are not interested in monuments and cultural sights, in contrary to tourists with high education who find that the monuments are available in the right time. When it comes to the marital status of the tourists, those who are married (62,4%) consider the monuments to be available in the right time, in contrary to the divorced tourists (18,7%) who consider them to be available, but always in the wrong time, and 22% of tourists, who are not married, are not interested in cultural sightseeing.

Cultural sightseeing in the city

	During cultural sightseeing did you feel lack of:							sig.h k
	n=	s %	. expert guidance and interpretatio n	. information possibilities about cultural monuments through leaflets, brochures and books	. information possibilities about cultural monuments through CDs, films and other types of multimedia presentations.	don't know; not interested in cultural monuments and information about them	DK/N A	
Country	1346	10 0	21.3	28.6	17.4	32	.4	,34
Croatian tourists	97	7.2	14.4	27.8	21.6	35	1	
all other tourists	1249	92. 7	21.9	28.6	17.1	31.8	.4	

Table 5. During cultural sightseeing did you feel lack of

The research shows that both foreign and local guests equally felt the lack of flyers, brochures and books on cultural monuments. The tourists have shown a special interest for CDs, film and multimedia on the cultural monuments of the city, which is in accordance with the high percentage of Internet usage.

When it comes to this issue, women (31.5%) missed the possibility of informing through flyers, brochures and books for the purposes of cultural sightseeing, in contrary to the 35% of men who are not interested in sightseeing. The age of tourists has shown to be interesting; older tourists (over 60 years of age, 35%) missed during cultural sightseeing professional guidance and explanation, and 32.7% (age 40-60) missed the possibility of informing through flyers, brochures and books. Those tourists whose monthly income is between 4000-6000 Euros missed professional guidance and explanation, in contrary to those tourists with incomes bigger than 6000 Euros, who missed the possibility of informing through CDs, film and other multimedia.

Organizing workshops for tourists on cultural history, monuments and painting

<i>Do you think tourists would be interested in organized workshops about cultural history, monuments and art</i>								
<i>Country</i>	<i>n=</i>	<i>s %</i>	<i>. yes, I think it would be very interesting</i>	<i>yes, but in low season</i>	<i>. no, I think it would be boring</i>	<i>don't know; not interested in that kind of offer</i>	<i>DK/NA</i>	<i>sig.hk</i>
<i>Country</i>	1346	100	39.8	21	10.4	28.2	.3	,74
<i>Croatian tourists</i>	97	7.2	44.3	22.6	8.2	24.7	0	
<i>all other tourists</i>	1249	92.7	39.5	20.8	10.6	28.5	.4	

Table 6. *Do you think tourists would be interested in organized workshops about cultural history, monuments and art*

The interviewed tourists have shown great interest (40%) for workshops on cultural history, monuments and painting. What is interesting is that 20% of them would prefer them to be off season.

There are significant differences between men and women; women (43.6%) find it would be interesting to organize professional workshops for tourists on cultural history, monuments and painting, while 33% of men are not interested in this type of offering. Education has also showed significant differences; those participants with finished postgraduate studies (47.6%) find that it would be interesting to organize such workshops, in opposite to 24.6% of participants with high education who are also interested, but off season, and tourists with finished high-school who are not interested in this type of offering (32.6%).

Services of a cultural guide

	<i>. Did you use the service of a tour guide?</i>						
	<i>n=</i>	<i>s %</i>	<i>yes, every time</i>	<i>sometimes</i>	<i>never</i>	<i>no, because I didn't go sightseeing</i>	<i>sig.hk</i>
<i>Country</i>	1346	100	10.5	26.4	46.8	16.1	,00
<i>Croatian tourists</i>	97	7.2	0	20.6	55.6	23.7	
<i>all other tourists</i>	1249	92.7	11.3	26.9	46.1	15.5	

Table 7. *Did you use the service of a tour guide*

According to the results of the survey a smaller number of tourists used the services of a tourist guide. There are differences between sexes as 49.7% of women never use the services above, while 28.9% of men sometime use the same services. Furthermore, the marital status has also shown as a significant indicator because 28.1% of divorced participants use the services of a tourist guide every time, in opposite to 18.7% of tourists that are not married who do not use the services of a tour guide because they do not engage in sightseeing. As far as monthly incomes go, the tourists with the average monthly income between 2001 and 4000 Euros (15.2%) use the services of a guide every time, the tourists with incomes between 4001 and 6000 Euros (37.2%) sometimes and the tourists with incomes lower than 2000 never use the same services.

Satisfaction with the level of service of a tourist guide for cultural monuments

Were you satisfied with the level of service offered by the cultural tour-guide?								
	n=	s %	yes, he/she was educative and communicative	partly yes, because I didn't find out enough	not satisfied at all with his/her knowledge	don't know, I didn't use the services of a tour guide	DK/NA	sig.hk
Country	1346	100	24.5	12.2	2.3	60.5	.2	,01
Croatian tourists	97	7.2	3	11.3	2	76.2	0	

Table 8. Were you satisfied with the level of service offered by the cultural tour-guide

Satisfaction with the service of tourist guides is bigger with older tourists (46-60 years of age, 27.8%), who find that their guide was educated and communicative, in contrary to the younger tourists (18-30, 3.4%) who are not at all satisfied with his knowledge. The tourists who are divorced (38%) find that their guide was educated and communicative, in contrary to the tourists who are not married; they are partially satisfied because they have not learned enough (13.8%). When it comes to monthly incomes, the most satisfied tourists are those with incomes between 40001 an 6000 Euros (37.2%) because they consider that their guide was educated and communicative.

Prices of cultural contents

Prices of cultural contents									
	n=	s %	too high	average	favourable	never used it	don't know / cannot say	DK/NA	sig.hk
Country	1345	100	3.7	32.2	35.7	9.6	.1	18.3	,51
Croatian tourists	97	7.2	3	39.1	34	11.3	0	12.3	
all other tourists	1248	92.7	3.8	31.7	35.8	9.5	.1	18.8	

Table 9. Prices of cultural contents

A third of the interviewed tourists have stated that prices of cultural contents is average and 36% have stated that the prices are affordable, and only 4% consider the prices to be too high.

DISCUSSION AND RECOMMENDATIONS

Based on the stands and opinions expressed by tourists, participants of the research, it is possible to give a certain analysis of the research results. We also find it useful to propose, based on this, certain measures and activities that would improve the offer of cultural tourism on the areas of Zadar, Šibenik-Knin and Dubrovnik-Neretva counties.

1. Art and cultural contents as a motif of visiting has been evaluated by tourists with an average rate of 3.5. The value of this motif is in the centre of the value scale.

When the motif of the visit is in question, the artistic and cultural contents are especially important for tourists with the highest level of education - completed postgraduate studies and monthly incomes larger than 6000 Euros.

Hence, the high educated tourist with above average monthly income is the market segment that is especially turned towards the offers of cultural tourism.

2. The number of those who are very satisfied and those who consider it could be a little bit better when it comes to information on the tradition and culture of Croatia, is equal.

During their stay in Croatia, the younger tourists are not interested in obtaining information on the tradition and culture of Croatia, while the older tourists, over 60 years of age, are very interested and satisfied with the obtained information.

Regardless of the achieved level of being informed about the tradition and culture of Croatia the research shows the need for even more intensive activities and the use of various media for the purpose of better informing the tourists on the offers of cultural tourism.

3. The interviewed tourists with high education, who are particularly relevant, find the description of monuments and cultural sights in the leaflets and guides to be good enough although it could be better. This "although it could be better" means that the interpretation of the offers of cultural tourism still is not on the level it belongs to, given the quality and variety of this type of offering in the areas of Zadar, Šibenik-Knin and Split-Dalmatia counties.

Therefore, regardless of the media through which information and description of the monuments and cultural objects is transmitted, it is necessary to do this in a more adequate manner with a bigger level of professionalism in forming information, where structure of the tourist boards and subjects of the offering of cultural tourism hold a special role and responsibility.

4. A relatively large number of tourists gave their opinion that the offering of cultural tourism is available in the wrong time or is not available enough. This indicates a necessity of a serious reconsideration of working hours and organization of work in cultural tourism, especially during the main tourist season.

5. The research shows that both foreign and local guests equally felt the lack of flyers, brochures and books on cultural monuments. Tourists have also shown a special interest for CDs, books and multimedia on city cultural monuments, which is in accordance with the high percentage of Internet usage. This indicates a much more intense engagement of local tourist boards but also economic entities engaged in publishing activities, on the creation and publication of new informative media.

6. The interviewed tourists have shown a great interest in the organization of a workshop on cultural history, monuments and painting. It is interesting that about 20% of them would prefer these workshops to take place off season. This is an extremely valuable indicator of the possibility to prolong the tourist season and organize new forms of offers in cultural tourism.

7. The satisfaction with the services of tourist guides is greater with older tourists, who consider their guide to be educated and communicative, unlike the younger tourists, who were not at all satisfied with their guides' knowledge. In the program and process of educating new generations of tourist guides this should be considered since it is obvious that new generations of tourists have different needs in guiding and presenting the offers of cultural tourism than the older generations of tourists.

8. Results of the research have shown that the prices of cultural content are average and affordable. This means that the existing offering of cultural tourism is cost-wise competitive but with a constant improvement of its quality and availability. In order to achieve that, the local government, subjects of the offers in cultural tourism and the tourist board structures must be included on all levels.

CONCLUSION

The offering of cultural tourism has realistic basis for a larger proportion and meaning in the whole tourist offering of Zadar, Šibenik-Knin and Split-Dalmatia counties.

However, the researches in this paper prove that it is necessary to take a number of actions to improve the existing level of presenting and valorising the offers of cultural tourism, where the culture, given the resource base, take the more significant role in the whole tourist offering of the three Dalmatian counties.

It was shown that there is a significantly greater need of tourists for a more detailed and more information in general, in various media, on the tradition and culture of Croatia.

Organization of work and working hours, cultural institutions, sights and all subjects of cultural tourism has shown to be inadequate to the needs and demands of tourists. If a "harmonious relationship" of tourists and the offers of cultural tourism are wanted, these differences need to be coordinated.

The need of tourists to participate, even off season, in the workshops on cultural history, monuments and painting, have shown to be a significant fact in creating and organizing special forms of offers in cultural tourism in the future.

Education of new generations of tourist guides need to be adjusted to the needs of new generations of tourists.

The research proved that the offering of cultural tourism, regarding prices, is competitive and that prices are not a limiting factor of the wholesome tourist spending that takes place in cultural tourism.

Cultural tourism in the areas of Zadar, Šibenik-Knin and Split-Dalmatia has a large and valuable resource base, attractive locations, monuments and events - an excellent offering.

With a better organizational form and with the inclusion of all subjects in the field of tourism in its evaluation, it is possible to expect greater effects on cultural tourism in the entire process of development in these areas.

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NEURAL NETWORKS AND PRICING STRATEGIES

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This paper aims at answering the following question: “what price should be set for the products a company wants to market?”. This decision is very critical because price can directly influence sale proceeds and marginal revenues.

In this paper we propose a new method for the prediction of market price, that is analytic and can consider intangible variables at the same time. In particular, we used neural networks, able to be trained on the basis of a definite topology, in order to have an output with the expected characteristics.

Regarding the predictability of market prices, results have been positive and characterized by a low mean square error. Therefore, neural networks can be used in order to output a prediction of the market price of the analyzed products.

This method for the price setting has been used here for the first time and, because of its efficacy, can be also used in different fields (i.e. as a support to the investment decision). Moreover, it can be compared to other methods present in literature, which are cost, competition, or customer-oriented.

Keywords: Neural Networks, Pricing, Data Mining, Simulation.

INTRODUCTION

Pricing policy is an essential component of a company commercial strategy, and price making often becomes a critical decision in the bringing out new products. Companies aim at foreseeing both sales at a certain price level and the average unit cost of production. Their management set a price that has the maximum difference between the price level and the average unit cost of production, in order to maximize profits. When the expected demand is overvalued, costs are higher and companies could have a loss. However, if the expected demand is correctly foreseen, but customers believe that the price of the product is too high, sales will be low: this will happen mainly because the competitors' product has a lower price (Bolton *et. al*, 2003). Thus, price setting is a critical decision, determining the company profit margins, its earning power, products and brands replacement, market and competitive advantage (Kotler and Keller, 2008). In this study we analyzed the importance of money in the buying process in a competitive environment based on the life cycle of a product. This research highlights the chance of using price as a strategic variable, and it analyzes pricing policies and objectives. Several methods of price determining have been analyzed. Each method is characterized by advantages and disadvantages: some of them are too based on costs, others are too subjective or complicated to use.

This paper introduces a new method for price setting, which employs a *neural networks* approach. This involves the construction of a mathematical model which, depending on input variables, simulates a value corresponding to the market price of product. The case study presented in this paper is based on a high-definition televisions market. The aim behind this case study is the determination of the neural networks contribution to the modelling price

settings, as well as its practical relevance in opposition to the theoretical relevance. Our experiment uses neural networks with regard to price setting and marketing decision support. In order to achieve this objective the HD television industry has been examined. A representative database modelled on this industry was re-created, and, basing it on a neural network approach, it was applied to determine the market price of a new product. Then the method here used has been compared to that used in academic literature. A *two layers networks* approach has been put forward, as it allows the acquisition of important information. Finally, the results have been analysed with regard to their relevance to the examined industry and some future development of this research has been suggested.

NEURAL NETWORKS AND PRICE SETTING

The methodological approach used in science-engineering to deal with the outside world is based on the construction of a formal model or an abstract representation that characterizes a real-world phenomena (Reitano, 2003). Formal models may simplify external behaviour by allowing the prediction of responses to particular input without operating on the real system (Reitano, 2006).

This conclusion justifies the wide engineering efforts in this direction, since the management and control of complex systems behaviour have always been considered a strong challenge. The implementation of models, or the whole activity performed in a computational analysis of models, is called simulation.

Simulation

Simulation is the result of the development of the information technology, that make possible a series of calculations necessary for the mathematical representation of a complex system. High Performance allows the highlighting of physical, economic or social aspects, becoming a very important tool for corporate management (Lehnard *et al.* 2006). In fact, simulation is applied to problems such as:

- Prediction of climate change;
- Design of new materials or new products;
- Simulation of crash tests and endurance tests of finished products;
- Design of plant layouts through the simulation of people movements inside the building;
- Credit-Risk Evaluation (Baesens *et al.*, 2003)
- Predicting performance stocks, forecasting investment, business games, analysis and forecasting consumer behaviour.
- Identification of households that are interested in a particular product or service (Kim *et al.*, 2005)

Simulation is often the only technique applicable in order to study complex systems. This occurs when it is not possible to obtain results through an analytical approach. Since this

situation happens very often, simulation is one of the most used approach for solving scientific and engineering problems. An alternative could be to realize simulation experiments on real systems, but this is often impossible or very inconvenient. Using tools and techniques based on simulation algorithms, it is important to not confuse the model system with the real one, because the model system works only under certain conditions. Moreover, if the experimental conditions are not present, the model loses its validity in terms of prediction. In other words, results could be completely different from those the real system returns applying the same input (Haykin, 2008).

Symbolic approach vs connectionist approach

Mathematical modelling is a part of an industry based on the representation of reality through symbols and operations performed on them, designed to solve problems or to define models with precise mathematical formalism. This approach is called symbolic. It is based on a chain of deductions and it is suitable for processes of conscious intelligence, typical reasoning of experts or demonstration of theorems. However, many other intellectual processes, such as the recognition of images, as well as audio or sensory-motor coordination, do not seem to be based on the logic characteristic of a symbolic approach. In fact, it's more probable that the recognition of images can be performed using an associative memory or a self-association that in correspondence to an input $X + \text{noise}$ returns a purified input X . Thus, when listening to the voice of someone, we sense information such as sex, age or humour, or when riding a bicycle we can avoid obstacles and or maintaining balance, it is impossible to explain such things using a symbolic approach, because of both the quickness in decision making process and the impossibility to explain how and why. Regarding the identification of what turns inputs into outputs reproducing them artificially, the Connectionist approach draws its inspiration directly from brain neurophysiology (Haykin, 2008). This approach involves the creation of an artificial neurons network, connecting non-linear elements with multiple inputs, and having only one exit. The elements receive input data and they return an output, that can be directed to the external, or can be directed to another neuron. This network is able to learn: learning takes place by an auto configuration in which the changes to the network topology are realized on the basis of an analysis of a predefined set of input-output pairs. Therefore neural networks are able to compare new situations, overcoming the limitations of a symbolic approach. Moreover, according to their ability to evolve, neural networks are very important in the field of simulation, and they are used in various fields as financial analysis, process control and marketing (Cui and Wong, 2004).

Neural calculation

Calculation is based on the construction of a neural network composed of a wide number of elementary components such as neurons. This architecture is directly inspired by the whole of nerve cells that make up the human brain (Werbos, 2009). The number of neurons constituting brain is around one hundred billion, and each neuron is connected by synapses with tens of thousands neurons, for a total of millions of billions of connections (Hopfield, 1982). A neuron is formed from a body cell (the soma), which branches out in order to form multiple nerve fibres connected to other neurons. The kind of contact between two neurons can be excitatory or

inhibitory. Therefore each neuron is characterized by a state of arousal or quiescence: the neuron is excited when the total stimulation caused by other neurons exceeds a certain threshold (this threshold can be variable and depends on many factors). When stimulated, the neuron gives an electrical signal that spreads along the nerve fibres and comes into a synaptic contact with other neurons. However, neurons can also stimulate muscles, as in the case of motor neurons. Therefore human brain can be defined as a system receiving input information from outside by senses (i.e. taste, smell, touch). The neurons propagate the signal to the sensor, which in turn stimulates the muscle to act the desired action. It is important to note that no individual neuron is characterized by a great performance, and thus the complex operations that human brain is able to play are due to the large number of neurons and connections between them rather than the intrinsic capacity of each neuron. Thus, the characteristics of the connectionist paradigm are the following:

- High number of elementary particles;
- Interconnection of each component with many other components;
- A simple basis structure which is not able to perform complex tasks or operations
- Changeable connections

It is important to underline that, if the network can change its structure, then it can learn. This happens through a feedback mechanism, where the minimization of an error is measured as the difference between the real system output and the model output. This kind of architecture has inspired the development and construction of the artificial neural networks. Moreover, neural networks can reproduce decision-making operations, typical of human logical reasoning (Terna *et al.* 2006), and can solve problems such as the forecasting of stock prices, the prevention of fraud, the development of activities, the routing and scheduling in manufacturing and transport, financial analysis, character recognition, and the prediction of consumer behaviour (Shaw *et al.*, 2001). However, these topics will be widely discussed in the following chapters.

Operation of a generic neural network and methodological application

A generic neural network can consist of several layers, including an input layer (which relates to the data input), some layers in between (usually not more than two), and an output layer that provides the results calculated by the network. Network connections are characterized by weights, usually expressed as a number between 0 and 1. These weights are determined through a process of training based on a data set (called training set) and a learning algorithm. The neural network evolves dynamically toward a final state of equilibrium that represents the ability to solve a problem (Bishop, 1995). Learning process may be very long and, in the case of an inadequate architecture of a network or algorithm, the system could not converge or manifest behaviour oscillations. However, when learning process works, synaptic weights are blocked, and the network works only by the law of activation. Thus, starting from an initial state representing the initial data of the problem, the network evolves towards a final solution of the problem (Hornik *et. al.*, 1989). Furthermore, in the case of an ineffective learning, the final status could be both non-significant and far from the absolute best level.

In conclusion, the first step is represented by data acquisition problem. Each neural network works only if it is trained on a set of examples from reality, used as a reference. This phase is usually the most difficult because data are not immediately available. After the acquisition of data, they are pre-treated in order to arrange a proper functioning of network. Then, data are adapted in order to generate an appropriate input for the network, and then appropriately scaled in order to have the same range and standard deviation. Regarding scalar data, it is necessary to add or subtract a constant, and subsequently divide and multiply by a constant. Scaling is used when, for example, it is necessary to change an unit for measurement data. Other operations are normalization and standardization. Normalization means to divide the elements of the vector for their rule so that they are in a range between 0 and 1. Moreover, regarding the standardization of the elements of a vector, it is necessary to subtract the mean and divide by the standard deviation. In this way the elements correspond to the instances of a random variable with mean 0 and standard deviation 1. These operations are necessary because they greatly influence the convergence speed of the back propagation algorithm. After the building of the database, it is necessary to divide the examples in sets of Training, Validation and Test. The training set is used to train the network, the validation one is mainly utilized in order to understand when it is necessary to stop the training, and the Test one is used for the network final test (in order to assess its performance before an use application). It is not necessary to use all the patterns for training, because a selection of them is sufficient to cover the whole range of output. Furthermore, it is important to identify:

- Network Topology
- Input unit number
- Output unit number
- Intermediate unit number
- Kind of activation function
- Kind of output function
- Learning Algorithm
- Starting weight value (random assignment mode)
- Weight update modality

After that, the true training can start, ending when the error on the validation set is minimum. For each considered network and cycle of training, all the training set patterns are put in the network and the output value, calculated by the network, is compared with the prefixed value. The calculated error is used to modify the weights of the connections as well as to control learning network using the Mean Square Error (MSE). MSE is calculated on the validation and test set: if these values are close, the network properly works and it is possible to implement and use it; if it does not work, it is necessary to correct the training, the validation and the test sets, as well as the pre-treatment of the data, the network architecture, or the choice of variables (Bishop, 2006).

THE IMPORTANCE OF PRICE

Price strategies have a great importance in economic and financial relations. They govern companies and exchange processes with consumers. In fact, in company's economy, "price is a key variable of a Profit equation", and it affects immediately the result (Valdani, 1989).

Buyers react to sale price with purchase options that determine the competitive positions of enterprises and their income trends from the medium to the long term (Vanhuele *et al.*, 2006).

This implicates that pricing is a critical decision, and it depends on the margins of contribution, economic business, perceptual positioning of products and brand (Schindler, 2006), and the competitive relations with other competitors. In addition, price is a Marketing variable characterized by a great flexibility, because it is quicker and easier to manipulate if compared to any other conventional action. Moreover, it is the only lever that immediately generates revenues (Rao, 1984), rather than others that generate only short-costs. Historically, price is one of the most discussed variables; in the past, products were very standardized and the only factor of distinction was price, expressed in quantitative terms that allowed the application of quantitative methods in order to study the economic indicators in the medium-long-term period. Pricing mainly consists in the quantitative monetary transposition of the value of the product offered by the company to customers (East *et al.*, 2009). Therefore, sale price has a dual meaning: on one hand it is the sacrifice that the customer bears for purchasing the property, and on the other hand it is the return of the efforts sustained for its production and marketing. Using a concise representation (Valdani, 1989):

$$\text{Price} = \frac{\text{Goods and services offered by the seller}}{\text{Money or products and services provided to the buyer}}$$

The concept of money is wide, and it means more than the simple combination of objective and quantitative. From the customer point of view, price can be defined as (Lambin, 2008):

$$\text{Price} = \frac{\text{Collection of monetary and non-monetary sacrifice}}{\text{Collection of satisfaction}}$$

For a long time price has been considered the only tool available for a company's competition. In fact, it is essential for the establishment of competitive business strategy, and it is important in order to correlate the degree of concentration in the sector and level of differentiation in demand (Kotler and Keller, 2007). Thus the importance of choosing an appropriate price is the result of both the companies number in a sector and their possibility to differentiate the offer on other parameters of action (Mazumdar *et al.*, 2005). If the market is highly standardised, price becomes the primary competitive variable, while in competitive situations, characterized by high heterogeneity of the application, the relevance of price is definitely the most contained. Although, in areas where market power is based on the ability to satisfy an heterogeneous demand through strong qualitative differentiation of offer, price can still strongly affect perceptions of value for consumers and market dynamics (Busacca *et al.* 2004).

THE OBJECTIVES OF THE RESEARCH

Experiments with neural networks have the objective to demonstrate their own validity in terms of market price predictions.

There are many methods in literature that allow a prediction of price, but each has some weaknesses that make them not reliable in some goods sectors. The proposed method does not aim at substituting the current ones, but it can be considered an effective alternative to be used

in the opportune contexts, such as those where it is possible to quantify a great part of products value parameters.

In order to declare the efficacy of this methodology we realized an experiment on a real case, observed the medium square error obtained by the network, and measured it as a difference between the prices calculated by the network and real prices.

THE EXPERIMENT

Neural networks can be used as a support for testing laboratory in economic field. With this new implementation, economic research comes into possession of completely new instruments, which could lead analysis to the theoretical boundaries of traditional schemes (Fabbri, Orsini, 1993). Neural networks, by their nature, bring into question the formal approach based on perfect rationality economic operators and the formulation and solution of problems of constrained optimization. This phenomenon is considered a methodological revolution: in fact, in the past, traditional methods were completely set on a logical-deductive approach and suffered, therefore, its characteristic limits. The use of neural networks allows to emulate the functioning of human brain, and, therefore, to analyze human behavioural processes such as, for example, given by consumer during purchase process. It can be said that functioning of neural networks in economic field is governed by the rationalistic and evolutionary processes that are a way of formalizing conditions of limited rationality, in which traders do not have any information on which to base their decisions, and any capacity to provide to future outcome of their actions (Kohl and Miikkulainen, 2009).

In this study, neural networks have been used as a methodology to determine price and to support marketing decisions. Neural networks approach has been applied to the LCD/plasma television industry. This market was selected because of data availability in numeric format, which simplifies the data collection and facilitates stringent and accurate simulation process. Each aspect of the product, which was used as model input, has been analysed with particular reference to: dimensions, contrast ratio, brightness, response time, 100hz technology, view angle, presence of digital tuner and power consumption. All variables mentioned above were normalised in order to adopt value between 0 and 1. This study was based on companies which are in competitions, and their products and services were perceived by consumers to be substitutes. The HD televisions industry is dominated by a few big companies, which often also partner to produce LCD panels together. Our study was based on consumers' perceptions about brands and product quality of eight leading companies. The target of the investigation was composed by men aged from 25 until 65 years old that were about to buy a hd television. The survey has been analyzed as input to the neural network and in order to realize a perceptive map.

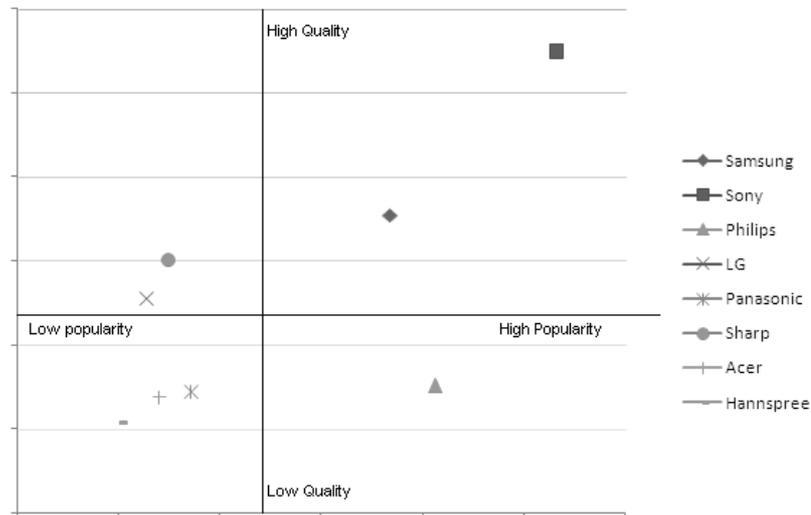


Figure 3 – Brand Perceptive Map

Results were calculated by associating a numerical value from 1 to 8 brand based on the location data of interviewees (thus a low value would be paid an high popularity/Quality). Later it has been calculated an index and a reverse rate that allows you to have an immediate vision of results. From Figure 1 it is immediately observed that SONY is the brand that enjoys the greatest popularity and greater confidence to customers, on the contrary the Hannspree company is almost unknown and, probably for this reason, the interviewees have also associated a low quality. Some products, one for each brand, having very similar characteristics, were observed focusing on prices charged by different companies. Through this survey it has been possible to develop another perceptual map on a board with the economical aspect and qualitative aspect.

It can be seen that companies that offer a low quality (in the view of respondents) engaged in a price better than their competitors. Sony is without doubt the company with the higher rank, and it could still keep the price competitive position in the quadrant of excellence, together with Samsung.

The Final Result

This simulation has been developed using a database divided in the following percentages for the different wholes:

- 79 % training set
- 12 % validation set
- 9% test set

Networks, that are different for the hidden units number, have been prepared with the joint use of JavaNNS and batchman, choosing, finally, the one that could guarantee the lower mean-square error on the validation set. Different experiments have been made, modifying, from time to time, some of the parameter values as the learning rate of the EBP algorithm.

The best network is BOT_9.net

Test set results: SSE=0.00772077 MSE=0.000857863

Validation set results: SSE=0.0076609

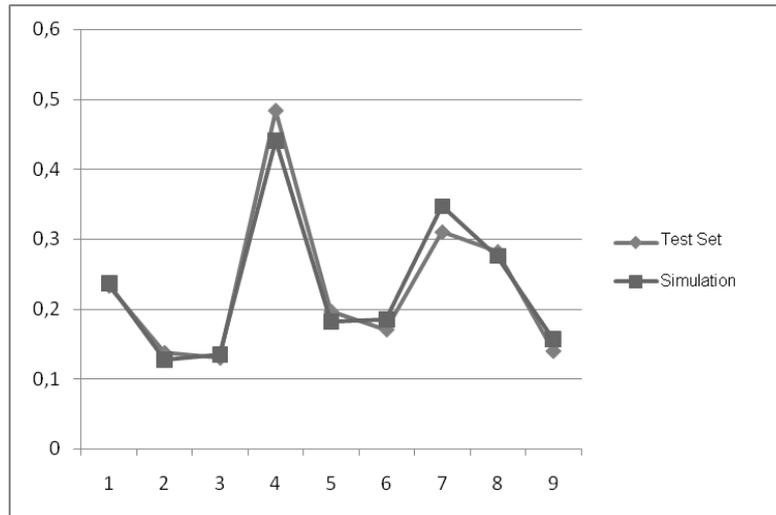


Figure 4 – Network Behaviour on Test Set

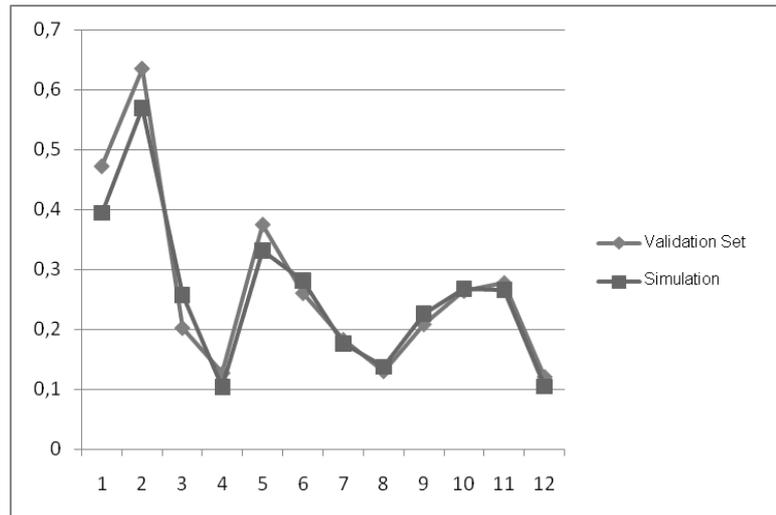


Figure 5 – Network Behaviour on Validation Set

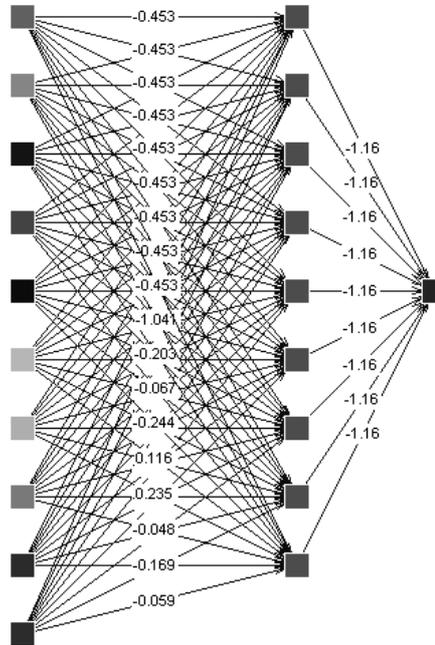


Figure 6 – Network Topology

Investigations have proved that trained networks with a learning rate equal to 0,2 give better results referred to its lower error level on the validation test and on the test set. The result proves that the network is able to determinate the price of a television that wasn't absolutely considered during the learning process and, thus, it is equipped of generalization characteristics. Consequently, it is possible to affirm that an approach based on neural networks can be used to solve the problem of the price making and it turns out being very effective and analytically precise as well. At the same time, the approach to neural networks takes into account also intangible characteristics (popularity and quality). A table has been elaborated to compare neural networks approach to the more used price making methods, and it has been possible to ascertain that the neural networks method gives an excellent precision/effectiveness and complexity/cost ratio. Subsequently, an experiment with a perceptron has been realized, in order to have the possibility to infer information about the relative importance of the performance characteristics used to set the final product's price. Calculating the potential as the sum of the inputs weighted with the connection weights, setting the threshold value to zero and using the identity function as output function, it is reasonable to presume that weights could give information about the incidence on price making of correlated characteristic.

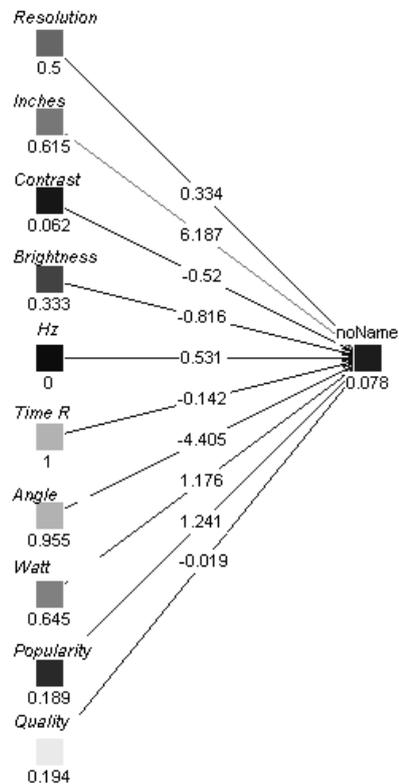


Figure 7 - Perception 10 neurons

The experiment has immediately shown, as it was reasonable to expect, that the most important characteristic is the panel dimension in inches, that determines almost proportionately the television price. In fact, the network sets a very high value to the weight correlated with it. A second experiment has been made isolating the inches characteristic and building a training set with televisions with the same dimensions. From this second experiment it is clear to understand that if all circumstances are equal, the panel resolution is the parameter that influences the price, immediately followed by the contrast. In addition, it is clearly visible that both in the first and the second experiment, parameters (i.e. the view angle) do not minimally influence price, as it has been foreseen during the study of the product characteristics. Thanks to this approach it is possible to obtain the relative importance of each characteristic and this could be useful in many applications. For example, during a business game study and realization, one of the biggest difficulties is very often represented by the individuation of the values that the system parameters have. In fact, these parameters define the weight of each state variable in the determination of other state variables. In this view, the potentialities of neural networks are very interesting, because numerous applications are possible. In fact, information elicited by these experiments can be used to take decisions about hypothetical investments on the characteristic of a value instead of another one. In our example television makers tend to disregard parameters as brightness or view angle, taking advantage of others, as for example dimension and resolution, that guarantee a bigger return rate. In conclusion, the experiment

about two layers networks has spotlighted some of the offered peculiar characteristics of HD television industry and has shown that neural networks can be a useful tool in the business decisional processes.

CONCLUSIONS AND FUTURE RESEARCH

This study suggests that neural networks can be a powerful tool in decision making in economics, and in particular regarding price setting. This is confirmed by the little mean square error obtained in the simulation on the test set. It has to be specified that error entity can be influenced by inaccuracies during data-gathering. In fact, some of the information obtained on the internet could be obsolete, and can not correspond to the current selling price (Zettermeyer *et al.*, 2006). This temporal incongruity between current dates and those that are not updated could influence the simulation process, with a peculiar error that cannot be linked to the network nature, but connected to the inaccuracies of patterns used during the training. Therefore it can be concluded that, in further more precise and expensive market researches, the neural network tool could have a very low error value, improving its effectiveness and precision. Consequently the neural networks method can be considered together with the methods that are already present in literature.

The capacity of understanding the information as the perceived value of the product is very important for the companies of new economy. It is necessary to consider the possibility of a company to compare internal costs with market price (the maximum applicable price) and to draw conclusions about profit margins or disinvestment decisions. Fabbri and Orsini affirm that the chaotic phenomena emerging in non-linear dynamic systems can be completely understood only with math tools or with simulative tools. In fact, these tools are able to reproduce faithfully the complexity of the phenomena. It seems that neural models can meet these requirements and it is possible to affirm that they are going to be used in many researches and applications for the investigation and the comprehension of economic system complex structure.

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A NOVEL APPROACH FOR SIMULATING ENTERPRISE NETWORKS AND CLUSTERS

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Purpose - The goal is to study the formation of clusters of enterprises and to verify how competencies spread over and modify the network, in order to supply a tool for managing inter-firm joints and collaborations.

Design/methodology/approach – The work deals with an agent based model used to simulate and analyze the dynamics behind networks districts and clusters creation and modification. This tool can be used to show the effect of a different managerial strategy (internally Vs externally focused) on a network of enterprises. The enterprises are endowed with a certain number of internal competencies and can decide to carry on a cooperative managerial strategy , in order to fill their gaps; a metaphor is used, in the form of “heat”, representing how much the enterprises are rewarded for the competences they can use, with a different weight for external or internal ones. The enterprises can explore the territory to find complementary competences (thus forming links) or exploit their current competencies to form new ones internally (internal exploration).

Findings – The model is comprehensive and its scope is wide. Qualitative results are described, reflecting current state-of-the art theories.

Originality/value – The presented framework help studying the dynamics of network formations among enterprises. It constitutes for Social Sciences the equivalent of lab experiments for such discipline as Physics or Chemistry.

Keywords Enterprise Networks, Emergent Behavior, Simulation, Decision Support

Paper type Research paper

INTRODUCTION

Firm’s productive opportunity is defined as possibilities for deploying resources that its entrepreneurs and managers can see and which they are willing and able to act on (Penrose, 1959). These conditions take firms face an important strategic dilemma. On one hand, exploiting existing competencies may provide short-term success, although competence exploration can become a hindrance to the firm’s long term viability by stifling the exploration of new competencies and the development new resources (Levinthal and March, 1993). On the other hand, deploying resource combinations as a form of external exploration search inherently mitigates the risk of failure by making the new combination perform in ways that firms in the mainstream market already value, while deploying resource combination as a form of internal exploration may dramatically enlarge the set of all possible deployments that are within someone’s ability and means to execute, increase the number of productive possibilities, and enable new market application to emerge (Hult, David, Ketchen and Slater, 2005).

The growth and development of a firm depend, therefore, on its ability to develop new capabilities and resources and introduce them in the market (Dougherty and Hardy, 1996). Thus, two different types of exploratory behaviours are involved in deploying new resources combination (Nerkar and Roberts, 2004). The first one is internally focused, when firms can

explore new resource combinations by using their research and development activities (Treece, 1982). On the other hand, externally focused firms can search along the value chain, using the range of complementary assets that results from participation in the competitive arena (Day, 1999). The effects extend, through network externalities, to others with whom the learning organization interacts (Katz and Shapiro, 1986). Reason inhibits foolishness; learning and imitation inhibit experimentation. During external exploration, each firm can reshape its communication and learning ego-network of relationships as result of the decisions to acquire new competencies. Network change consists of changes in the number of actors (exit and entry), and changes in number and patterns of link information. The network can expand, churn, strengthen or shrink. Each network change is brought about by specific combination of changes in tie creation, tie deletion, and by changes in an actor's portfolio size (number of link) and portfolio range (numbers of partners). Philippen and Riccaboni in their work on "radical innovation and network evolution" focus on the importance of local link formation and the process of distant link formation. Regarding the formation of new links, Gulati (1995) finds the process of new tie creation to be heavily embedded in an actors' existing network. This means that new ties are often formed with prior partners or with partners of prior partners, indicating network growth to be a local process. Particularly when considering inter-firm alliances, new link formation is considered risky and actors prefer alliances that are embedded in a dense clique where norms are more likely to be enforceable and opportunistic behaviour to be punished. Distant link formation implies that new linkages are created with partners who are not known to the existing partners of an actor. At the level of the firm, Burt (1982) shows that distant linkages that serve as a bridge between dense local clique of firms, can provide access to new source of information and favourable strategic negotiation position, which improve the firms' position in the network and industry.

The main goal of this paper is to introduce a computational model to be used as a tool for studying and analyzing the effects of different managerial behaviour (externally or internally focused) on enterprise clusters and, at the same time, to explore the effects of innovations on the network itself. The internally or externally focused behaviours have a very different impact on the clusters formation, along with a series of parameters included in the model.

ENTERPRISE AND BUSINESS CLUSTERS

Clustering is definable as the tendency of vertically and/or horizontally integrated firms in related lines of business to concentrate geographically, or, to a more general extent, virtually.

Cluster policies are an example of pro-active industrial policy with shared responsibilities among actors; besides, the agglomeration of firms and their suppliers can confer competitive advantage to the enterprises involved.

There are many social and economic reasons leading to clusters creation. The main economic drivers of cluster formation in particular industries include: proximity to markets. Despite low-cost international transportation, being near to markets can be important in cluster development (products that are not easy to transport, that require continuous interaction with customers). Supplies of specialised labour.

The existence of specialised pools of labour, such as occur around many universities.

The presence of input and equipment suppliers. A high frequency of exchanges between co-located capital goods producers and users.

The availability of specific natural resources; economies of scale in production. Such economies may allow only a small number of efficient-scale plants in a given market. The availability of infrastructure. Some types of infrastructure may also be quite specific, such as with certain transport or tourist facilities, further encouraging agglomeration. Low transaction costs. When firms and their suppliers operate near to each other, and the frequency of interaction is high, the costs of negotiation and contract enforcement may be reduced.

Superior access to information. This is straightforward: when many enterprises are integrated, than the information system is usually shared or, if individually managed, it allows an easier communication among them. Enterprises, when aggregated in clusters, can share, for example: product and market information, product design, marketing policies, training, recruitment services, human resources, skills, purchasing (lower prices for raw material and supplies), transportation and delivery (for geographical clusters), quality control, testing facilities, financing (credit guarantees at collective level), sponsorships. Many of the mentioned can be considered as "competences". That's why the model takes as its basic unit for link creation the generic "competence exchange" among two enterprises. Of course this is true during the external exploration phase, where an enterprise is looking for the best partner to create a new link, or to strengthen an existing one. Though, also the internal exploration is very important since it can allow an enterprise to develop a new competence, that will be used later on to be exchanged, thus constituting a new link with another firm.

The price-independent preferences of both the market and its participants are based on each one's perception of the other rather than the market simply being the sum of all its participants actions as is usually the case. So, the cluster effect is a usually cited example of emergence.

In order to study these dynamics, as long as the optimal balancing among different strategies and the importance of exogenous parameters in cluster creation, a model is presented. It follows the agent based paradigm, particularly suited for describing complex social systems in which many parts interact among them. This allows to create simulations of the studied system, and to test different hypotheses. Besides, it's the only paradigm in which the emergent features of complex systems can arise spontaneously, thanks to the bottom-up design.

AGENT BASED SIMULATION

Why do enterprises team up? There can be many reasons for this strategy, leading, in its widest extent, to the creation of joint-ventures, i.e.: a new economical subject formed by two or more enterprises with the goal of new projects, or of clusters and networks of enterprises. The leading cause for these phenomena is the optimization of the production, by resources and competences sharing. Agent based simulation is an effective paradigm for studying complex systems. It allows the creation of virtual societies, in which each agent can interact with others basing on certain rules. The agents are basic entities, endowed with the capacity of performing certain actions, and with certain variables defining their state. In the model presented here, the agents are reactive, meaning that they simply react to the stimuli coming from the environment and from other agents, without elaborating their own strategies. When the model is formally

built and implemented, it can be run by changing a parameter at a time, and emergence of a complex behaviour occurs.

Agent based Modelling is thus one of most interesting and advanced approaches for simulating a complex system: in a social context, the single parts and the whole are often very hard to describe in detail. Besides, there are agent-based formalisms which allow studying the emergence of social behaviour through the creation and study of models, known as artificial societies. Thanks to the ever increasing computational power, it has been possible to use such models to create software, based on intelligent agents, whose aggregate behaviour is complex and difficult to predict, and which can be used in open and distributed systems.

In Franklin and Graesser (1997) we read that: *“An autonomous agent is a system situated within and a part of an environment that senses that environment and acts on it, over time, in pursuit of its own agenda and so as to effect what it senses in the future”*.

Another very general, yet comprehensive definition is provided by Jennings (1996): *“...the term [agent] is usually applied to describe self-contained programs which can control their own actions based on their perceptions of their operating environment”*.

Agents have traditionally been categorized as one of the following types (Woolridge and Jennings, 1995):

- Reactive
- Collaborative/Deliberative
- Hybrid

When designing any agent-based system, it is important to determine how sophisticated the agents' reasoning will be. Reactive agents simply retrieve pre-set behaviours similar to reflexes, without maintaining any internal state. On the other hand, deliberative agents behave more like they are thinking, by searching through a space of behaviours, maintaining internal state, and predicting the effect of actions. Although the line between reactive and deliberative agents can be somewhat blurry, an agent with no internal state is certainly reactive, and one that bases its actions on the predicted actions of other agents is deliberative.

The agents used in this paper are reactive, but organized in the form of a MAS (Multi Agent System), which can be thought of as a group of interacting agents working together or communicating among each other. To maximize the efficiency of the system, each agent must be able to reason about other agents' actions in addition to its own. A dynamic and unpredictable environment creates a need for an agent to employ flexible strategies. The more flexible the strategies however, the more difficult it becomes to predict what the other agents are going to do. For this reason, coordination mechanisms have been developed to help the agents interact when performing complex actions requiring teamwork. These mechanisms must ensure that the plans of individual agents do not conflict, while guiding the agents in pursuit of the system goals. Many simulation paradigms exist; agent-based simulation is probably the one that best captures the human factor behind decisions. This is because the model is not organized with explicit equations, but is made up of many different entities with their own behaviour. The macro results emerge naturally through the interaction of these micro behaviours and are often more than the algebraic sum of them. This is why this paradigm is optimal for the purposes of

modelling complex systems and of capturing the human factor. The model presented in this paper strictly follows the agent based paradigm and employs reactive agents, as detailed in the following paragraph.

THE MODEL

The model is built in Java, thus following the Object Oriented philosophy and has been engineered and built at the *e-business L@B*, University of Turin. This is suitable for agent based modelling, since the individual agents can be seen as objects coming from a prototypal class, interacting among them basing on the internal rules (methods). While the reactive nature of the agents may seem a limitation, it's indeed a way to keep track of the aggregate behaviour of a large number of entities acting in the same system at the same time. All the numerical parameters can be decided at the beginning of each simulation (e.g.: number of enterprises, and so on). Everything in the model is seen as an agent; thus we have three kinds of agents: Environment, Enterprises and Emissaries (E³). This is done since each of them, even the environment, is endowed with some actions to perform.

Heat Metaphor

In order to represent the advantage of an enterprise in owning different competences, the "heat" metaphor is introduced. In agent based models for Economics, the metaphor based approach (Remondino, 2003) is an established way of representing real phenomena through computational and physical metaphors. In this case, a quantum of heat is assigned for each competence at each simulation turn. If the competence is internal (i.e.: developed by the enterprise) this value is higher. If the competence is external (i.e.: borrowed from another enterprise) this value is lower. This is realistic, since in the model we don't have any form of variable cost for competencies, and thus an internal competence is rewarded more. Heat is thus a metaphor not only for the profit that an enterprise can derive from owning many competences, but also for the managing and synergic part (e.g.: economy of scale).

Heat is also expendable in the process of creating new internal competences (exploitation) and of looking for partner with whom to share them in exchange of external competences (exploration). At each time-step, a part of the heat is scattered (this can be regarded as a set of costs for the enterprise). If the individual heat gets under a threshold, the enterprise ceases its activity and disappears from the environment.

At an aggregate level, average environmental heat is a good and synthetic measure to monitor the state of the system.

Environment

This is a meta-agent, representing the environment in which the proper agents act. It's considered an agent itself, since it can perform some actions on the others and on the heat. It features the following properties: a grid (X,Y), i.e.: a lattice in the form of a matrix, containing cells; a dispersion value, i.e.: a real number used to calculate the dissipated heat at each step; the heat threshold under which an enterprise ceases; a value defining the infrastructure level and quality; a threshold over which new enterprises are introduced; a function polling the average

heat (of the whole grid). The environment affects the heat dispersion over the grid and, based on the parameter described above, allows new enterprises to join the world.

Enterprise

This is the most important and central type of agent in the model. Its behaviour is based on the reactive paradigm, i.e.: stimulus-reaction. The goal for these agents is that of surviving in the environment (i.e.: never go under the minimum allowed heat threshold). They are endowed with a heat level (energy) that will be consumed when performing actions. They feature a unique ID, a coordinate system (to track their position on the lattice), and a real number identifying the heat they own. The most important feature of the enterprise agent is a matrix identifying which competences (processes) it can dispose of. In the first row, each position of the vector identifies a specific competence, and is equal to 1, if disposed of, or to 0 if lacking. A second row is used to identify internal competences or outsourced ones (in that case, the ID of the lender is memorized). A third row is used to store a value to identify the owned competences developed after a phase of internal exploration, to distinguish them from those possessed from the beginning. Besides, an enterprise can be "settled", or "not settled", meaning that it joined the world, but is still looking for the best position on the territory through its emissary. The enterprise features a wired original behaviour: internally or externally explorative. This is the default behaviour, the one with which an enterprise is born, but it can be changed under certain circumstances. This means that an enterprise can be naturally oriented to internal explorative strategy (preferring to develop new processes internally), but can act the opposite way, if it considers it can be more convenient. Of course, the externally explorative enterprises have a different bias from internally explorative ones, when deciding what strategy to actually take.

Finally, the enterprise keeps track of its collaborators (i.e.: the list of enterprise with whom it is exchanging competencies and making synergies) and has a parameters defining the minimum number of competencies it expects to find, in order to form a joint. The main goal for each enterprise is that of acquiring competences, both through internal (e.g.: research and development) and external exploration (e.g.: forming new links with other enterprises). The enterprises are rewarded with heat based on the number of competences they possess (different, parameterized weights for internal or external ones), that is spread in the surrounding territory, thus slowly evaporating, and is used for internal and external exploration tasks.

Emissary

These are agents that strictly belong to the enterprises, and are to be seen as probes able to move on the territory and detect information about it. They are used in two different situation: 1) if the enterprise is not settled yet (just appeared on the territory) it's sent out to find the best place where to settle. 2) if the enterprise is settled and chooses to explore externally, an emissary is sent out to find the best possible partners. In both cases, the emissary, that has a field of vision limited to the surrounding 8 cells, probes the territory for heat and moves following the hottest cells. When it finds an enterprise in a cell, it probes its competencies and compares them to those possessed by its chief enterprise verifying if these are a good complement (according to the parameter described in the previous section). In the first case, the enterprise is settled in a cell

which is near the best enterprise found during the movement. In the second case, the enterprise asks the best found for collaboration).

While moving, the emissary consumes a quantum of heat, that is directly dependant on the quality of infrastructures of the environment.

The movement of the emissaries is detailed within the following paragraph (5.3).

In the following paragraph a formal insight of the model is given through a set of defining equations, for the agents and the general rules.

MODEL EQUATIONS AND ITERATIONS

Model Equations

In order to formally describe the model, a set of equations is described in the following.

The multi agent system at time \mathbf{T} is defined as:

$$\mathbf{MAS}_T = \langle \bar{\mathbf{E}}, \bar{\mathbf{e}}, \bar{\mathbf{e}}, \overline{\mathbf{link}} \rangle . \quad (1)$$

Where $\bar{\mathbf{E}}$ represents the environment and is formed by a grid $\mathbf{n} * \mathbf{m}$, and a set $\bar{\mathbf{k}}$:

$$\left\{ \begin{array}{l} \bar{\mathbf{E}} = \langle \mathbf{n} * \mathbf{m}, \bar{\mathbf{k}} \rangle \\ \mathbf{n}, \mathbf{m} > \mathbf{0} \end{array} \right. . \quad (2)$$

Where the set $\bar{\mathbf{k}}$ defines the heat for each cell, $\bar{\mathbf{e}}$ is the set of enterprises with coordinates on the grid, and $\bar{\mathbf{e}}$ is the set of the emissaries, also scattered on the grid:

$$\left\{ \begin{array}{l} \bar{\mathbf{k}} = \langle \mathbf{k}_{i,j} \rangle \\ \bar{\mathbf{e}} = \langle \mathbf{e}_{i',j'} \rangle \\ \bar{\mathbf{e}} = \langle \mathbf{e}_{i'',j''} \rangle \\ \mathbf{0} < i, i', i'' \leq \mathbf{n} \\ \mathbf{0} < j, j', j'' \leq \mathbf{m} \end{array} \right. . \quad (3)$$

Each enterprise is composed by a vector $\bar{\mathbf{c}}$, and an emissary (\mathbf{e}_e). The vector $\bar{\mathbf{c}}$ defines the owned competences, with a length \mathbf{L} and competences \mathbf{C}_i represented by a boolean variable (where 1 means that the i^{th} competence is owned, while 0 means that it's lacking):

$$\begin{cases} e_{ij} \ni \vec{c}_e, \varepsilon_e \\ \vec{c}_e = (L, C_1) \\ 0 \leq l \leq L \\ C_1 = \text{Boolean} \end{cases} \quad (4)$$

In $T = t > 0$, k_{ij} that's the heat of each cell on the grid, depends on the heat produced by the enterprises (K_e) and the dispersion effect (d). The heat of each enterprise is function of the competences it possesses and of the behavior it carried on in the last turns (b_e).

$$\begin{cases} k_{ij} = [f(K)_e, d] \\ K_e = f(\vec{c}_e, b_e) \\ b \in \bar{b} \\ \bar{b} = \langle \text{set of behaviors} \rangle \end{cases} \quad (5)$$

In particular, a certain behavior can be successful, meaning that at the end of a phase of internal or external exploration, a new competence (internal or outsourced, respectively) will be possessed. Otherwise, a it's unsuccessful when, after some steps of research and development (internal exploration) or external market research to find a partner, nothing new is found, and thus the l^{th} competence remains zero.

$$\begin{cases} \{ \text{if } (b = \text{success}) \text{ then } C_1 = 1 \\ \text{else } C_1 = 0 \\ b \in \bar{b} \end{cases} \quad (6)$$

At each time-step the set of links (connecting two enterprises together) is updated basing on the competences of the enterprises.

$$\begin{cases} \overline{\text{link}} = \langle \text{link}(e_{ij}, e_{i'j'}) \rangle \\ \text{link}(e_{ij}, e_{i'j'}) = f(\overline{c_{e_{ij}}}, \overline{c_{e_{i'j'}}}) \end{cases} \quad (7)$$

Specifically, when an enterprise does external exploration, it looks for a good partner, i.e.: an enterprise with a number of competences to share. So, if an enterprise with a vector like **10001** meets one with a vector like **01110** then there is a perfect match and the two enterprises will create a link among them, to share the reciprocally missing competences. This is the perfect situation, but not the only one in which two enterprise can create a link; in fact, it's enough that there is at least one competence to reciprocally share. The strength of the link is directly proportional to the exchanged competences. This set of equations and rules is enough to explore the effects on the network of the behaviors of the enterprises, namely the way in which

the firms are managed (externally or internally focused). Though the model allows also to explore the effects on innovation (i.e.: a competence that's possessed only by one enterprise).

In $\mathbf{T} = \mathbf{t}' > \mathbf{t}$ a radical innovation can be metaphorically introduced in the system (this is called "shock mode", since this is decided by the user, at an arbitrary step) by means of increasing the length of the vector of competences of a specific enterprise:

$$\begin{cases} \mathbf{L} \leftarrow \mathbf{L} + 1 \\ \mathbf{C}_{i+1}(\mathbf{E}) = 1 \\ \mathbf{C}_{i+1}(\mathbf{E} - \mathbf{E}) = 0 \end{cases} \quad (8)$$

Meaning that the competence \mathbf{C}_{i+1} will be possessed by only one enterprise, at that time, while the same competence will be lacking to all the others; though, all the enterprises' vectors will increase in length, meaning that potentially all of them will be able to internally develop that new competence through R&D, from then on.

The vector length metaphorically represents the complexity of the sector (industry) in which the enterprises operate; an highly technological sector has many more potential competences than a non-technological one. So, another kind of "shock effect" to the system is that of increasing the length of the vector by more than one component, and by leaving all the new components to zero for all the enterprises. In this way, they'll have to develop themselves the new competences by means of internal exploration. The analysis phase is carried on after several steps after \mathbf{t}' , in order to see how the introduction of the innovation impacted the network and the enterprise in which the innovation was first introduced. So we have an analysis phase in $\mathbf{T} = \mathbf{t}'' > \mathbf{t}'$ defined as:

$$\begin{cases} \text{MAS}'_i \text{ vs } \text{MAS}''_i \\ \mathbf{L} \leftarrow \mathbf{L} + \mathbf{d}\mathbf{L}; \mathbf{d}\mathbf{E}; \mathbf{d}\mathbf{K} \end{cases} \quad (9)$$

Namely, the comparison among the system at time \mathbf{t}' and the same system at time \mathbf{t}'' , since the innovation has differential effects on the number (and nature) of the links, on the number of enterprises and the heat of the cells composing the environment, always depending on the managerial behavior of the involved enterprises. At the beginning of a simulation, the user can change the core parameters, in order to create a particular scenario to study and analyze.

Synthetic model iterations

At step 0, a lattice is created (n, m). A number of enterprises (X) are created (according to the proper parameter set by the user), x of them internally explorative (IE) and X-x of them externally explorative (EE). X, x, n, and m are set by the user, before the simulation starts.

At step 1, the environment checks if some enterprise reached the minimum heat threshold; if so, removes it from the world. After that, each enterprise, if idle (not doing anything) decides what behavior to follow.

At step 2, all the enterprises that selected to be EE move their emissary by one cell. All the IE ones work on the R&D cycle (one step at a time). At step 3, the EE enterprises check if the emissary finished its energy and, in that case, ask the best found enterprise for collaboration (they can receive a positive or negative reply, basing on the needs of the other enterprise). The IE enterprises check if R&D process is finished and, in that case, get a competence in a random position (that can be already occupied by an owned competences, thus wasting the work done).

At step 4, the environment scatters the heat according to its parameters. Loop from step 1.

While the internal exploration behaviour is technically simply represented by some idle steps, after which an enterprise develops a new competence in a random position ^{1th} (based on a uniform distribution), the external exploration is a bit more complicated, and is metaphorically represented by the movement of a "probe", called "emissary", that searches the territory for the best possible match with other enterprises. The iterations behind the movement of the emissary are deterministic: it can move on the grid to follow the hottest cells. When an enterprise is found, its competence vector is analyzed, to see how many competences are possessed, that are missing to the parent enterprise. A quantum of heat is consumed at each step by the emissary, and when the heat is over, the enterprise with the best found vector is asked for collaboration and competence exchange.

PARAMETERS IN THE MODEL

At the beginning of a simulation, the user can change the core parameters, in order to create a particular scenario to study. In figure 1, the section of the control panel containing the parameters is shown.

Some of the parameters are constituted by a scalar value, others are in percentage, others are used to define stochastic (normal) distributions, given their mean value and their variance. Here follows a synthetic explanation for the individual parameters: *Maximum number of steps*: is the number of iterations in the model. 0 sets the unbounded mode

Initial number of enterprises: is the number of enterprise agents present at start-up (0 is random)

Initial heat for enterprise: a normal distribution setting the initial energy for each enterprise, given the mean and the variance

Number of competences: the length of the vector, equal for all the enterprises (metaphorically representing the complexity of the sector in which they operate)

Competences possessed at start-up: a normal distribution referring to how many processes an enterprise owns internally, given the mean and the variance

Threshold for new enterprise to enter the market: a delta in the average heat of the world, after which a new enterprise is attracted in the market

Infrastructure quality: affects the cost of external exploration

Minimum heat threshold: level under which an enterprise cease

Minimum percentage of competences to share for link creation: when asked for a competences exchange, the other enterprise looks at this value to decide whether to create a link or not

Emissary step cost: percentage of the heat possessed by the enterprise spent for each step of its emissary, during external exploration task

Internal exploration duration: quantity of steps for internally developing a new competence

Internal exploration cost: percentage of the heat possessed by the enterprise spent for each step of internal exploration

Environment control cycles: quantity of steps for sampling the average heat of the environment

Heat dispersion index: percentage of heat evaporated at each step

Lattice dimension: the dimension of the grid hosting the enterprise (i.e.: the whole environment)

Internal Exploration cost: una tantum cost for setting up an emissary for external exploration

Propensity to External Exploration for new enterprises: when a new enterprise enters the market, it looks at the average number of links in the network. If more than this value, it behaves as externally explorative, otherwise internally explorative

Number of initial enterprises doing external exploration: variable to divide the initial behaviour

Value of internal/external competence: reward (heat) given for each internal/external competence possessed

QUALITATIVE RESULTS

While the main object of this paper is to present the model itself as a tool for studying the effects of different managerial behaviour (externally or internally focused) on enterprise networks, in this paragraph some insights will be given about preliminary results obtained from the model itself. The presented ones will be mainly qualitative results, although the model can give many quantitative individual and aggregate results. In particular, a “computational only” mode is present in the model, allowing it to perform a multi-run batch execution. This is done according to the theory presented in Remondino and Correndo (2006): the model is executed a defined number of times (chosen by the user) and the different outputs are sampled and collected at every n steps (again, n decidable by the user) with the same parameters (in order to overcome sampling effects that could be caused by stochastic distributions) or by changing one parameter at a time by a discrete step, in order to carry on a *coeteris paribus* analysis on the model. While this kind of analysis will be discussed in detail in future works, here some qualitative and semi-quantitative outputs will be discussed, obtained from the model. The model can give the following different kinds of outputs, when running in “normal” mode: 1) a real-time graph, depicting the social network, in which the nodes are the enterprises, whose colour represent the behaviour they are following at a given step, and the links are the ties indicating two or more enterprises mutually exchanging one or more competences. 2) A set of charts, showing in real time some core parameters, namely: average heat in the environment, number of links (in the network), number of links (average), number of enterprises doing internal exploration, number of ceased enterprises since the beginning, number of born enterprises since the beginning, number of available competences (overall), total number of skills possessed at the beginning, obtained by external exploration, obtained by internal exploration.

In fig. 1, 2 and 3, the output graph is depicted at times 0 (no links), 100 and 500. These pictures belong to the same simulation, so the parameters are the same for all of them, with the only variation of time, giving a hint about the development of the enterprise network. In fig. 1 the initial state of the network is shown, where no ties have been created, yet. A total of 20 enterprises is on the territory, 10 of which have an internally explorative behaviour and the other 10 have an externally explorative mood. Internal competences are rewarded 10% more than external ones, but internal exploration strategy (e.g.: research & development) is 30% more expensive.

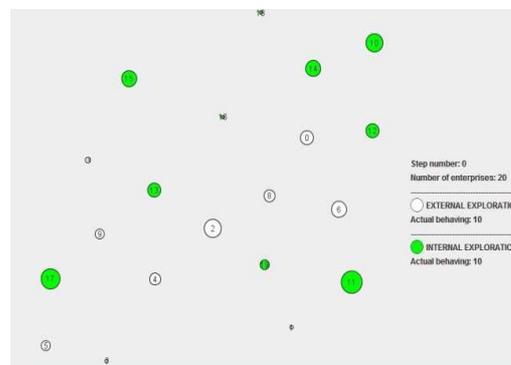


Fig. 1. The network at time 0

After 100 steps (fig. 2) some new players have entered the market (an average of 1 new enterprise each 10 steps), meaning that the average heat of the system increased significantly; this can be thought as a starting network, attracting new players thanks to a good overall balance. Some ties have formed and many new competences (the dimension of enterprises) have been internally produced.

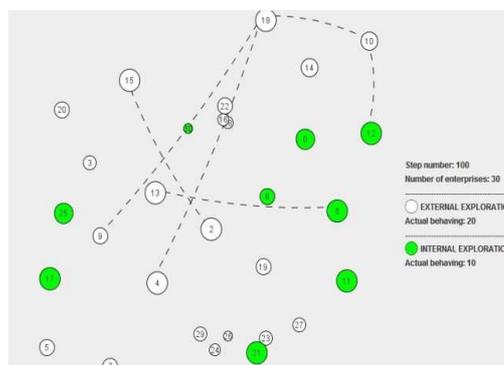


Fig. 2. The network at time 100

After the initial steps in which 50% of the enterprise was doing internal exploration, now at the 100th step, only one third (i.e.: 33%) is doing that, since almost all the smaller players are trying to outsource them from the bigger ones, in order to gain some energy. Unfortunately, many of these small enterprises have no competence to give to the bigger one in exchange for theirs. They will eventually die (ceased enterprises) or try to change strategy, by starting an internal exploration. That's why at time 500 (fig. 3) the total number of players increased again, but at a lower rate (1 every 15 steps, as an average) and now, in percentage, most of the survived enterprises are doing external exploration (62% circa) and have become quite big (many internal competences possessed).

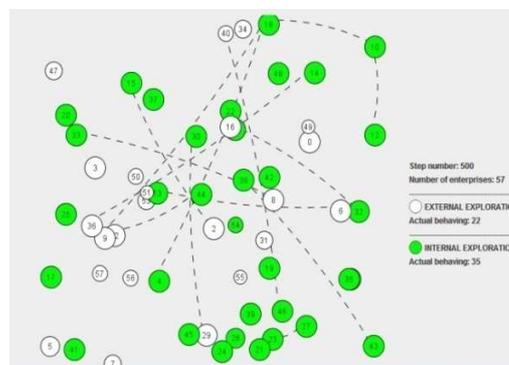


Fig. 3. The network at time 500

Notice that in this experiment the threshold under which an enterprise must cease is a low value, meaning that few of them have to leave the market. This was done intentionally to show how enterprises can react and adapt their behaviour even if they are modelled as reactive agents.

CONCLUSION AND FUTURE WORKS

An agent based model is introduced, aiming at capturing the dynamics behind the creation and the following modifications of enterprise clusters for competences exchange, i.e.: networks in which enterprises can internally develop and/or share processes with other players. This is, by the way, one of the focal points behind the creation of industrial districts and clusters and is mainly dependent on the strategic management of the individual enterprises, namely externally or internally focused, and the optimal balance among these policies. A well established network of this kind can attract new players, that will probably bring new knowledge and competences in it. The model is formally discussed, and so the agents composing it and its iterations. While studying quantitative results is beyond the purpose of this work, a qualitative analysis is given, and the network graph, one of the graphical outputs supplied by the model, is analyzed in order to show how network dynamics emerge from the model and its parameters, settable by the user. At the beginning, when the enterprises have few competences and high perception of how can be difficult develop and innovation process, they try to link with the enterprises that have already developed innovative processes. That's why, in an initial phase, the number of enterprises doing external exploration tends to increase. After some steps, the number of

enterprises choosing external exploration is lower and lower and limited to the smallest players, or the newly arrived ones. The reason is that at the beginning, the enterprise's capability are low and the perception of the effort for developing a process innovation is high. The enterprise at this phase typically try to share and exchange competences with others that already developed an innovative process, not having to face the risk of inside developing, even if this can be more gainful in the long run. As time passes by, the enterprises start to become bigger and be more conscious about their capabilities and knowledge, thus reducing the perception of the effort to develop innovative processes internally.

The model is comprehensive and its scope is wide. In future works other features will be introduced, and quantitative analysis will be carried on in order to study real-world cases (e.g.: existing industrial districts and so on) and the underlying dynamics that lead to their creations. Besides, a new feature will be implemented in the model, referred to as "shock mode", allowing the user to stop the model at a given step, and change some inner parameter, thus introducing innovations as explained at the end of paragraph 5.1. Also, agents' behaviour will be much more articulated; while in the present model agents simply react to some predefined rules, in order to choose which action to perform, in future works two new agent categories will be introduced: stochastic agents and cognitive agents. The former will base their behaviour on a uniform probability distribution, while the latter will adapt themselves, based on the payoff they get from their previous actions (trial and error learning technique). This will allow to capture even at a higher detail the effects on an enterprise network of a given management policy, adding realism to the behavioural choice.

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CORPORATE SOCIAL RESPONSIBILITY IN THE CROATIAN RETAILING

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Purpose: The main purpose of the paper is to explore three aspects of corporate social responsibility in the Croatian retail industry: responsibility to the community, employee rights and working conditions and environmental protection. Moreover, the goals of the paper are: to present an overview of the CSR issues being addressed within the Croatian retailing, to give an outline of the structure of the Croatian retailing and to investigate the level of the commitment of Croatian retailers to CSR.

Design/methodology/approach: The research is based on secondary (desk) and primary (field) research. Within the framework of secondary research, the relevant domestic and foreign literature with the topic of corporate social responsibility was used. Within the framework of primary research, the study on the sample of 60 retailing managers was conducted. Statistical data analysis was done using SPSS 13.0.

Findings: The findings reveal that the process of retailing internationalization and media coverage increased efforts of retail companies operating on the Croatian market to demonstrate socially responsible behaviours. The results indicate that retailers are concerned about all investigated aspects of corporate social responsibility: responsibility to the community, employee rights and working conditions and environmental protection.

Research limitations/implications: CSR in the retailing has received little attention from Croatian academics. This study was based on a small sample retail companies. Therefore, future studies are required to ensure representativeness.

Originality/value: The provides an review of the CSR issues being reported by some of the Croatian retailer and as such it could be useful to Croatian academics and practitioners which deal with the investigated area.

Key words: corporate social responsibility, retailing, Croatia

INTRODUCTION

In recent years, increasing number of companies have experienced crisis because of environmental accidents, social ills, customer boycott, activists' threats, strikes, negative publicity, damage of image, investors' losses, legal penalties etc. Hence, corporate social responsibility (CSR) has become more important component of corporate strategy at the domestic and global level. Concept of corporate social responsibility means ethical treat and responsibility to various stakeholders who have interest in the business: investors, workers, customers, business partners and contractors, government, society and community, environment, activists etc. World Bank noted that "CSR is the commitment of business to behave ethically and to contribute to sustainable economic development by working with all relevant

stakeholders to improve their lives in way that are good for business, the sustainable development agenda, and society at large". The Hoskins (2005) stated that the aim of social responsibility is to create higher standards of living, while preserving profitability of the corporation, for peoples within and outside of corporation. CSR incorporate undertaking the responsible activities that goes beyond the legal, market and economic requirements. CRS promote values such as freedom and human rights, democracy, diversity, minority protection, reduction of poverty and inequality between rich and poor, health and quality of life. The main purpose of the paper is to identify key areas of corporate social responsibility concerning Croatian retailers and the impact of corporate social responsibility on the performance effectiveness. The basic hypothesis of this paper are: (H1) there is significant relationship between CSR and the size of the retailer and (H2) there is significant relationship between CSR and the years of retailer's existence on the market.

As CSR has increased its importance within the Croatian retailing during the past few years, this paper will contribute to the understanding of the ways in which retailers are using CSR to communicate with community, their employees, stakeholders and customers as well. The paper begins with the short theoretical background where relevant work on CSR is briefly discussed. The short discussion about the Croatian retailing situation is given to provide a background for the study. Then a research study examining three dimensions is of CSR in Croatian retailing industry: (1) responsibility to the community and society, (2) employee rights and working conditions, and (3) environmental protection is presented. After that, results of the study are given. Finally, the results are discussed with an emphasis on the impact of CSR on the Croatian retail companies' performance and the ability for some improvements in this sector.

THEORETICAL BACKGROUND OF THE PROBLEM

CSR may be motivated by altruistic motives, and/or economic motives (avoiding the threats or profit maximization). Many researchers qualify CSR as a part of improving corporate performance. Freeman (1984) stated that CSR might be an optimal choice to minimize transaction costs and potential conflict with stakeholders. Stakeholders are extrinsically and intrinsically motivated and intrinsic stimulus can be substitute for extrinsic motives and thus affects the level of sales, resource availability, productivity, reputation etc. There are numerous empirical studies that find positive link between CSR and corporate performance. Considering 127 published empirical studies between 1972 and 2002, Margolis and Walsh (2003) found that the majority of these studies found a statistical significant and positive correlation between CSR and corporate financial performance (CFP) in both directions (causality in running from CSR and CFP and vice versa). In some regressions coefficient was not statistically significant, and a small number of studies showed negative relationship. Stanwick and Stanwick (1998) and Verschoor (1998) established positive relationship between corporate performance and good relationship with stakeholders. Soleman and Hansen (1985) findings show that costs of having a high level of CSR are more than compensated by benefits in employee morale and productivity. Ruf and others' (2001) study shows that there is positive relationship between change in CSR and increase in sales and returns on sales for three financial periods. Pava and Krausz (1996) and Preston and O'Bannon found that CSR is positively connected with financial performance (1997).

Hence, engaging in CSR, the company might achieve benefits that are supposed to offset costs of CSR activities. These benefits might be customer satisfaction and higher sales, better image and brand, friendly oriented activists, availability of investors, bargaining power, better adjustment to future regulation and protection from legal actions and penalties, intrinsic motivation of employees that can increase productivity and competitiveness, free advertising, etc.

The company rating the social performance of firms "Kynder, Lynderberg and Domini Research & Analytics" divides CSR criteria into eight main categories: 1) community, 2) corporate governance, 3) diversity, 4) employee relations, 5) environment, 6) human rights, 7) product quality, and 8) controversial business issues. Kitzmuller (2008) identifies six frameworks of strategic CSR: 1) labour market, 2) products market, 3) financial markets, 4) private activism, 5) public policy, 6) isomorphism. Pavić-Rogošić (www.mreza-lokalni-razvoj.net) divided CSR dimensions into two main groups: 1) internal (human resources, health and safety, responsible flexibility to change, natural resources and environmental process management); and 2) external (local community, relationship with suppliers, customers and partners, human rights, global environmental management). Scott (2007) analyse and group CSR criteria into five main areas: 1) responsibility to the community and society, 2) promoting democracy and citizenship, 3) reducing poverty and the inequality between rich and poor, 4) employee rights and working conditions, 5) ethical behaviour.

As a transitional country burdened by a post-war problems, Croatia has various difficulties in joining international economic and political flows. During 1990s Croatia initiated development of democracy and privatisation process that includes: reform of state-owned companies, stimulus for private companies, and attractiveness of Croatia to foreign investors and creation of national stock market. Even though CSR has become more important strategic issue, it is still insufficiently spread in developing countries. The first national conference "Promotion of social responsible business in Croatia: Agenda for 2005" attracted attention of economic, political and social subjects, but it took several years to initiate their concrete steps toward CSR.

One empirical economic analysis (Tipurić, Omazić, Hruška, 2004) explores the social awareness in business practice of Croatian managers and concludes: 1) larger proportion of Croatian managers that have affirmative attitude towards CSR think how CSR is part of their daily job and how CSR influence workers' motivation and devotion in comparison to proportion of managers that have neutral or aversive attitude toward CSR; 2) larger proportion of managers that have affirmative attitude towards CSR emphasize influence of external organizational factors while larger proportion of managers with neutral attitude emphasize internal organizational factors as stimulus for CSR.

Omazić (2008) analyzed CSR in Croatia and stated that stakeholders' activities in Croatia were mostly reactive and focus to media which resulted in situation where companies thought of CSR as public relations and donations. He stated that legal system was reactive in nature and didn't demand special efforts and concluded that there was no clear evidence in strategic sense that Croatian companies pay enough attention to CSR, even though growing number of companies thought of CSR as a business opportunity.

Škrabalo, Bagić and Miošić-Lisjak (2008) published the paper that was part of comprehensive research "Accelerating CSR practices in the new EU member states and candidate countries as a vehicle for harmonizing, competitiveness, and social cohesion in the EU" which was conducted by UNDP for the need of EU Commission. They assessed that in Croatia there were about 200 companies that accepted CSR as a part of their strategic orientation. These companies were mostly large, leading companies, with significant share of foreign ownership, listed at stock market and export oriented. Authors concluded that CSR could be found mostly in production and processing industry, financial sector and telecommunications. The areas of CSR are mostly: quality and safety of work, customer satisfaction, environmental protection, and partnership in community. Some information about CSR elements can be found on several web pages, in manuals, education courses, or collected from business associations and expert organizations, which was not the case several years ago in Croatia. Beside that, CSR is promoted by Government, NGO, National competitiveness council, and media.

OUTLINE STRUCTURE OF THE CROATIAN RETAILING

In order to get the clear picture of the importance of retail industry in Croatia, it is necessary to explain the significance of the overall sector in the national economy and to give current data on retail industry.

Distributive trade sector is a significant part of the Croatian national economy. Distributive trade (statistical NACE field G) generates 10,96% of gross domestic product (own calculation according to data in RCCBS First release, 27.02.2009). This sector currently employs 17,6% of total active workforce (own calculation according to data in Croatian Statistical Yearbook, 2008, p. 124). More than 36% registered legal entities are registered as companies in distributive trade sector (own calculation according to data in Croatian Statistical Yearbook, 2008, p. 73).

At the moment, distributive trade generates 4.697 mil. EUR of Gross Value Added (RCCBS First release, 27.02.2009). It is the second largest employer in Croatia (after the processing industry) as there were 273.825 employed persons. Detailed analysis of the structure of distributive trade shows that retail trade has the largest number of employed i.e. 46,1%; wholesale trade 29,95% and motor vehicles and motorcycles trade 7,6%. The non-commercial activities have 16,35% of employment.

The importance of retail industry is even more obvious if we analyze data in Table 1. Out of 38410 business entities in the sector, 55 % are registered for retail. Out of 48980 outlets of various formats, 60,3% are retail outlets. Almost half employees in the sector are employed in retail industry (45,74% of 273.825).

	<i>No. of business entities</i>	<i>No. of outlets/service points</i>	<i>Persons in employment</i>
<i>Motor vehicles & motorcycles trade</i>	4516	4951	20841
<i>Wholesale trade</i>	9351	8484	81984
<i>Retail trade</i>	21151	29521	125260
<i>Non-trading activities</i>	3372	6024	44740
<i>Total</i>	38410	48980	273825

Table 1 *The structure of distributive trade in Croatia.* Source: RCCBS First release, no. 12.1.4, Republic of Croatia Central Bureau of Statistics, 27th February 2009

Croatian retail network is still very fragmented and being dominated by small stores (34% of market consists of stores with an area under 100sq m). However, changes in the global retail market and customers' way of life caused the decreasing in the number of small stores. According to data in Table 2, hypermarkets and supermarkets are steadily increasing their market share. Nowadays, main characteristics of Croatian retailing are concentration, internationalization and consolidation with 71,4% of the market held by 15 retailers (comparing to 16.6% of the market held by 10 retailers in 2002).

	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>
<i>Hypermarkets</i>	6	9	10	13	16	17	17,1	18
<i>Supermarkets</i>	29	33	35	33	34	32	32,1	31
<i>Cash&carry</i>	6	8	11	9	9	9	7,5	6
<i>Small shops</i>	53	45	40	40	39	37	34,6	34
<i>Discounts</i>	-	-	-	-	-	-	-	4
<i>Others</i>	6	5	4	5	2	5	8,7	7

Table 2 *The structure of the market by size type (%).* Source: Croatian Chamber of Economy (2008), First release. Trade Department

METHODOLOGY

The data

A survey method was used for collecting data from the target population comprising the retailing sector operating in Croatia. In order to achieve as high response rate as possible, retailing managers that are participating 15 Postgraduate studies on the Faculty of Economics and Business of Zagreb were selected. In the initial phase, fully structured questionnaires were distributed to a sample of 600 postgraduate students. In such a way, 120 completed questionnaires were returned. Among them, questionnaires filled up by retail managers were

deemed usable for analysis. Thus, the respondents of the survey consisted of 60 retail managers of different retail companies in Croatia.

The questionnaire design

The questionnaire consisted of three sections.

Section I of the questionnaire was devoted to 22 statements relating to three categories of CSR in retailing: (1) employee rights and working conditions (2), responsibility to the community and society, (3) environmental protection.

Employee rights and working conditions are presented by following elements: exposure to temperature and sound extremes, air quality in work place, sick and maternity leave policy, preventive systematic health check-up, employee education, employee wages, compensation program for good business results, developed communication system within the company and internal meetings..

Responsibility to the community and society are presented by: organization of sponsor and humanitarian campaigns, act in compatibility with needs of local community, sponsoring development of sport, culture, education and environmental projects, support employee freedom in joining associations and right to collective agreement and publishing company newspapers.

Environmental protection is presented by several following elements: generations of noise, smell of waste, existence and maintenance of fire-devices, of emergency procedures and familiarity of staff with them, existence of safety certificate, encouraging and supporting employee responsible environmental behaviour taking care about plants in offices.

Statements were adopted from *A Guidelines Manual for Retailers towards Sustainable Consumption & Production* (2008). A five-point Likert format was used to assess the level of commitments of managers to the various CSR statements used in this section. The five-point scale ranged from 1= strongly disagree to 5= strongly agree.

Section II of the questionnaire consisted of 13 statements relating performance of the company. Statements were adopted from studies of Krohmer et al. (2002), Ruckert et al. (1985) and Quazi (2003). A five-point Likert format was used to assess the level of commitments of managers to the statements relating to the situation in the business comparing to competition.

Section III of the questionnaire consisted of characteristics of the company: the size of our company and the years of its existence on the market.

Analysis

The collected data were analyzed using SPSS. Except from descriptive statistics calculations, significance of the findings was explored using Spearman correlation coefficient and chi-square tests, depending on the various types of combination of variable that occurred. The p values were calculated to examine the level of statistical relationship between pair of variables. The hypotheses were tested using the conventional significance level of 0,05.

RESULTS

Characteristics of the sample are given in the Table 3.

<i>Item</i>	<i>Frequency</i>	<i>Percent</i>
<i>The size of the company</i>		
<i>less than 50 employees</i>	28	46,7
<i>50-250 employees</i>	11	18,3
<i>more than 250 employees</i>	21	35,0
<i>The years of the companies existence on the market</i>		
<i>less than 5 years</i>	7	11,7
<i>5-12 years</i>	22	36,7
<i>more than 12 years</i>	31	51,7

Table 3. Characteristics of the sample Source: authors

Table 4 present average perceptions of different CSR aspects. As table 4 reveals, respondents, i.e. retail companies, perceive that their companies are involved in environmental protection very much. Neighbours perception of the noise levels is very good (average grade = 4,39) and there are small problems with waste storage odours (average grade = 1,68). Also, relatively small number of retailers have native plant and/or low water consumption landscaping in their offices (average grade = 3,60) and reinforce environmentally responsible behaviours among staff (average grade = 3,03).

Companies are taking care of safety and emergency procedures because fire extinguishers are in place and properly maintained (average grade = 4,27). However, lower average grade of commitment with staff trained (average grade = 3,61) with emergency procedures and staff training in general (average grade = 3,14) are disturbing. Although there is increasing awareness of the importance of employees' knowledge and skills as the most important source of the company and essential for the companies' success (Jones et al., 2007), on average there are grade lower than 3,00 assigned to rewards programme for good employees performances and internal communication. As in the context of the CSR dimension, employees and subcontract labour must be given the necessary and appropriate education and training and should have opportunity to improve their working conditions (Rainey, 2006, p. 232), we can conclude that Croatian retailers do not spend sufficiently on employees' development activities.

Those findings can be supported by average grades of satisfaction with policies on sick leave and/or maternity leave, wages and preventive health security of employees. On the scale from 1 to 5, they are just above 3,00 which signifies that even managers are moderately satisfied with analyzed CSR elements.

<i>Item</i>	<i>Mean</i>	<i>St.dev.</i>
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<i>Neighbours perception of noise levels</i>	4,39	0,910
<i>Problems with waste storage odours</i>	1,68	1,121
<i>Maintenance of fire extinguishers</i>	4,27	1,219
<i>Emergency procedures</i>	3,61	1,543
<i>Native plant and/or low water consumption landscaping</i>	3,60	1,280
<i>Staff exposure to temperature or noise extremes</i>	2,15	1,350
<i>Offices air quality & dust/vapours</i>	2,56	1,277
<i>Policies on sick leave and/or maternity leave</i>	3,66	1,308
<i>Employees' satisfaction with policies on sick leave and/or maternity leave</i>	3,75	1,212
<i>Staff training and updating of training</i>	3,14	1,224
<i>Environmentally responsible behaviours among staff</i>	3,03	1,221
<i>Rewards programme for good performances</i>	2,87	1,432
<i>Internal communication system</i>	3,45	1,227
<i>The certification of safety</i>	3,11	1,520
<i>Internal meetings</i>	3,62	1,451
<i>Employees' wages</i>	3,47	1,096
<i>Freedom of association and right to collective bargain</i>	3,53	1,308
<i>Internal newspapers</i>	2,52	1,799
<i>Preventive health security of employees</i>	3,50	1,750
<i>Sponsorships and humanitarian campaigns</i>	2,95	1,517
<i>Relationship to local communities</i>	3,08	1,430
<i>The development of sports, culture, education, and environmental projects</i>	2,93	1,518

Table 4. Average perceptions of different CSR aspects. Source: authors

According to the results in table 4, retailers do not adequately recognise the range of impact they have on the communities within which they operate, because average grades for the development of various sponsorships and humanitarian campaigns, the respond to the needs of local communities and the broad social environment in which retailers operate and funding the development of sports, culture, education, and environmental projects are 2,95; 3,08 and 2,93 respectively.

Out of 22 CSR elements, companies' internal meetings organization and the size of the company showed statistically significant relationships ($\chi^2= 17,765$; $df=8$, $p=0,023$). 52 per cent of large companies (companies with more than 250 employees) have internal meetings very often. Also, a significant relationship ($\chi^2 = 18,570$, $df=8$, $p=0,017$) between the company's support of freedom of employees' association and right to collective bargain and the size of the company was found. 47,4 per cent of large companies support the freedom of employees association and right to collective bargain. Chi-square test show significant relationship between the fact that companies publish their internal newspapers and the size of those companies ($\chi^2 = 16,880$, $df=8$, $p=0,031$). 70,6 per cent of large companies have their internal news. Statistically significant relationship between sponsorships and humanitarian campaigns of retailers and their size was found ($\chi^2 = 28,012$, $df=8$, $p=0,000$). Among those who developed various sponsorships and humanitarian campaigns 73,7 per cent of respondents were from large companies. On the other side, the largest percent (85,7) of those who do not invest in sponsorships and humanitarian campaigns are small retail companies (less than 50 employees). Moreover, retailers' involvement

in the development of sports, culture, education, and environmental projects are significantly related with their size ($\chi^2 = 21,301$, $df=8$, $p=0,006$).

To determine the direction of relationship and the strength of the relationship between CSR items and characteristics of retailers, correlation analysis was done (Table 5). Table 5 shows that significant relationships exist between the size of the retailer and some other CSR aspects, too. For example, there is a moderate positive association between the retailer's reinforcement of environmentally responsible behaviours among staff and its size. Also, correlation analysis suggests: more larger the retailer, higher the level of its commitment to emergency procedures, and the certification of safety and preventive health security of employees, as well.

<i>Item</i>	<i>Spearman correlation coefficient</i>
<i>Emergency procedures</i>	<i>0,365**</i>
<i>Environmentally responsible behaviours among staff</i>	<i>0,270*</i>
<i>The certification of safety</i>	<i>0,377**</i>
<i>Internal meetings</i>	<i>0,317*</i>
<i>Preventive health security of employees</i>	<i>0,367**</i>
<i>Sponsorships and humanitarian campaigns</i>	<i>0,500**</i>
<i>Relationship to local communities</i>	<i>0,457**</i>
<i>The development of sports, culture, education, and environmental projects</i>	<i>0,459**</i>

Table 5. Correlation coefficients (significant relationships). ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed). Source: authors

In order to know whether CSR and the Croatian retail companies' performance are related, correlation analysis was used. As Krohmer et al. (2002) we used and adapted perceptual measures of outcomes that assessed effectiveness, and adaptiveness to measure performance specifically focused on the research domain. We asked respondents to rate the performance of their business in relation to that of its competitors. Table 6 shows only moderate ($\pm 0,6 \leq r \leq \pm 0,4$) and strong associations ($\pm 0,7 \leq r \leq \pm 0,9$) (Dancey & Reidy, 2002, pp. 166).

<i>CSR Item</i>	<i>Performance Item</i>	<i>Spearman correlation coefficient</i>
<i>Employees' satisfaction with policies on sick leave and/or maternity leave</i>	<i>Greater contribution to the local job market Company's social responsible standing is its effective basis for competing</i>	<i>0,462** 0,496**</i>
<i>Environmentally responsible behaviours among staff</i>	<i>Greater contribution to the local job market</i>	<i>0,403**</i>
<i>Internal meetings</i>	<i>Effectively adaptation to changes in the market environment</i>	<i>0,423**</i>
<i>Employees' wages</i>	<i>Effectively adaptation to changes in the market environment</i>	<i>0,450**</i>
<i>Preventive health security of employees</i>	<i>Greater contribution to the local job market Responsibility towards employees Opportunities for personal development</i>	<i>0,427** 0,534** 0,518**</i>

Table 6. Correlation coefficients (relationships between CSR elements and the Croatian retail companies performance).

** Correlation is significant at the 0.01 level (2-tailed). Source: authors

As we can see, there is a moderate positive association between the satisfaction of companies' employees with the policies on sick leave and/or maternity leave and the companies' contribution to the local job market in comparison to their competitors. In other words, more satisfied employees result in greater contribution to the local job market. Additionally, table 6 suggests that there is a moderate positive association between the satisfaction of companies' employees with the policies on sick leave and/or maternity leave and the companies' social responsible standing as its effective basis for competing. Thus, increases in the quality of policies on sick leave and/or maternity leave also enhance company's effective basis for competing.

There is a moderate positive relationship between companies' reinforcement of environmentally responsible behaviours among staff and the companies' contribution to the local job market in comparison to their competitors. Therefore, retailers' stronger involvement in environmentally responsible behaviours among staff will result in a much greater contribution to the local job market.

Additionally, internal meetings and employees' wages are moderate positive related to companies' adaptation to changes in the market environment. Companies that have internal meeting very often and whose employees have got adequate wages are companies better adapt to changes in the market environment.

Table 6 shows that companies' organization of preventive health security of employees is moderate positive related to its contribution to the local job market, responsibility towards employees and opportunities for personal development. Thus, companies that more organize preventive health security of employees increase their contribution to the local job market,

increase their responsibility towards employees and offer more opportunities for personal development of their employees than their competition.

LIMITATIONS

A number of potential limitations of this study need to be acknowledged. Firstly, direct distribution of the questionnaire to only retail managers might have compromised the representativeness of the sample. Also, limitation of the study lies in its relatively small sample size. This was mainly attributable to the limited time and resources available for the study. Therefore, the findings of this research should not be generalized across the entire Croatian retailing sector. The methodology followed and the statistical methods employed in the study were also subject to limitations.

Future studies may be directed to the whole retailing sector to develop a broad based understanding of the linkages between company's characteristics and CSR issues. A number of company's profiles such as region, size of residence, etc. can be explored as the determinants of CSR because the Croatian retail market is not homogenous in its structure.

CONCLUSION

This paper is an attempt to reveal what is the level of CSR of Croatian retail companies. The study suggests that an explicit and sustained focus on health and safety and human resources is common to most of investigated retail companies. However, retail companies report their recognition of the importance of CSR and their commitment to integrate it within their business but they invest relatively limited resources in their employees. Also, there is limited participation in the local community's activities. Only small number of respondents recognized the importance of improving environmental performance that can be translated into increased staff commitment.

The majority of Croatian retailers are making use of CSR themes in their communication with their customers, community, stakeholders, etc. but the survey revealed that on average their commitment was very low. According to the findings, there is a relationship between the size of the company and CSR because large companies accepted CSR as a part of their strategic orientation. Thus, the first hypothesis was approved. However, companies' years of existence on market were not related to CSR in any investigated item and therefore second hypothesis was rejected. The study points out significant relationships between some CSR elements and business performance (i.e. adaptiveness and effectiveness).

As competition for market share in the retail sector is intense, these findings have important implications for Croatian retail sector because retailers are facing significant pressures to offer high level of service, knowledge and skills of their employees and to reduce cost as well. The findings could give them directions which strategy to apply in order to improve conditions for workers and in return win greater loyalty and dedication from the staff. Taking into considerations above mentioned limitations of the study, future research should be conducted on the sample of Croatian consumers to find out their perception of retailers' CSR.

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THE ITALIAN SMES IN THE GLOBAL CONTEXT:
THE ACCOUNTABILITY SYSTEM ROLE

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The main purpose of this paper is to analyze critical and economic-financial tools of communication and social reporting such as driver of society development process in order to allow Small and Medium Size Italian Enterprises (SMEs) to become large and considerable in the national and international business system. The research work explores accountability system role making Italian SMEs considerable on national and international scale. To define a SME as global, the paper will compare internationalization indicators with the levels of accountability that a company can reach reporting and highlighting any correlations. The main purpose is to suggest a definition of small, medium and large company closely connected to their competitiveness capability, not necessary through quantitative parameters. From this point of view, large companies - not necessary great - are those which play a decisive role on a national and international scale.

Keywords: Complexity, external environment, communication, responsibility, accountability, corporate governance, global context, stakeholder, network, social reporting, company size.

ITALIAN SMES IN THE MEDITERRANEAN AREA

In the Italian economic system the small and medium size enterprises (SMEs) and “micro-firm” represent 90% of the total Italian economic entities with a medium number of 50 employs for each one²⁰³. Even so, the national wealth of “*made in Italy*” is increased by this small entities and by their manufactured products. Over the last decades the issue about SMEs, and in particular, SMEs in going global, has gained the attention of scholars and business experts as a key factor to improve competitiveness and lead the “*made in Italy*” all over the word. In the Mediterranean area “*the vast majority (of European companies) ... are small or medium sized entities*”²⁰⁴, so the goal of European Authorities is to create a network in a free and global market (Med Forum, 2009).

While big enterprises may enjoy of the advantages of their large dimension, SMEs don’t have so easy access to global market.

²⁰³ ISTAT Annual Report, 2008

²⁰⁴ IASB, *Accounting Standard for Small and Medium-sized Entities, Topic Summary*, October, 30th 2003, www.iasb.org

In the traditional business literature, SMEs are identified through some specific quantitative factors (see Table 1)²⁰⁵: turnover, number of employees and total assets.

PARAMETERS	MICRO-FIRM	SMALL BUSINESS	MEDIUM FIRMS
Workforce	≤10 unit	≤50 unit	≤250 unit
Maximum annual turnover	2 million	10 million	50 million
Total assets	≤2 million	≤10 million	≤43 million

Table 4: dimensional principles for enterprise classification

On the other hand, according to some Italian scholars (Bertini, 1969, Aureli, Cesaroni, Demartini, 2004), definition of small, medium and large company results from the role the companies play in a society development process and not only from quantitative parameters. From this point of view, *large companies* are those which are able to lead global competitiveness while, on the other hand, small ones are those which are not able to affect economic and living conditions on a large scale. In other words there are some SMEs which may be “*large*” in the market thanks to their capabilities, competences and some financial and economic reporting tools that make them able to play a leading role in the development process in national and international scenario. In this way, and through specific tools of communication that increase confidence and transparency in small firms in coming *large*, they may gain the same or more advantages of big companies.

Up against the change a first trend is what Di Bernardo and Rullani have called widening of “reference horizons”. About this we can talk of “interdependent globalization” that is a radically brand new situation where economical, productive, social, cultural specificities interact, mutually communicate and become – thanks to computer technologies and informatics know-how – interconnected parts of wider systems. Interdependence doesn’t avoid power, capacity and resources deep inequalities. In the meantime the rate is different from time to time according to different globalization processes: faster at a financial level, slower at a cultural and civil level. From this asymmetrical integration patterns follow implicating imbalances relating to relative positions of all the subjects involved. Globalization is a good opportunity for some of them, while for some others it’s a threat to which they answer activating defence and protection mechanisms.

But what is good in this macroeconomic scenario is also good for SMEs?

Small and Medium Enterprises have an economic and social value: this kind of enterprises may, in fact, also be conceived as a model for social stability thanks to its ability to develop employment opportunities and social mobility in the Mediterranean area. Therefore, to develop and implement an economic strategy, it’s necessary to be aware of this social impact and search

²⁰⁵ UE Recommendation n°. 316/2003, adapted by P.Ricci, *Introduzione all’economia aziendale*, Giuffrè, Milano, 2007, p. 25.

for the right way to communicate it to stakeholders. Indeed, to become global it is necessary to create:

- a wide entrepreneurial culture, enlarged and open to the external environment;
- a common language to disseminate and share goals and values throughout the Mediterranean area in order to converge different individual actions towards a great strategic development goal;
- a network of relationship and partnership to increase confidence and believableness to each other.

Measures of corporate internationalisation have gained crucial importance in the recent debate on globalisation, since many scholars link globalisation to a quantitative increase in the international activities of firms. Opinions on the extent of this increase differ widely, however, depending on what measurement concept is used. As there is no universally applicable measurement concept, researchers face the difficult task of bringing research questions, measurement concepts and data availability into line.

Various obstacles have prevented the growth and modernisation of the SME sector in transition countries, although they did not inhibit the foundation of great numbers of traditional, mostly micro-enterprises fighting for survival. These obstacles require that proper policies are addressed to the SME sector, both involving the general context or SME specific issues. The situation varies greatly through countries due to pre-transition features and different transition strategies.

It is necessary to understand what are the obstacles to this role of SMEs as a first step to remove them. As it turns out, obstacles to SMEs establishment, growth and modernisation vary largely through countries, as the nature and present role of SMEs do. Countries in transition are remarkably different also under this aspect. In general, the problem is not necessarily that SMEs did not grow in numbers. True, in some cases, such as that of Russia, there are too few SMEs compared to the size of the country and to the numbers existing in comparable market economies. However, in some other cases the problem has been labelled as “too many, too small”. This label stresses that SMEs size is too small to make them viable in modern and competitive market economies. A corollary of the latter is that most small businesses are concentrated in the traditional consumers trade (including shuttle trade) and some traditional handicraft. Scarce examples of vertical integration with large firms exist, and barely any horizontal networks. In the case of SMEs all this has meant that institutions and infrastructure, including those necessary to SMEs, were missing or undeveloped. SMEs themselves – their owners and entrepreneurs in particular – missed the necessary experience and expertise to successfully operate in a competitive market economy. To these one should add that transition as it was implemented also meant liberalisation of foreign competition, often excessively abrupt for new SMEs to survive.

Obstacles SMEs in transition apparently change during their life cycle. Credit is an important issue in point. While observers and scholars often quote the lack of credit as a major obstacle to SMEs foundation. The lack of credit (including bank credit, trade credit, and leasing) becomes a major obstacle that prevents or slows down the growth and modernisation particularly of domestic firms.

SMEs that want become global and competitive in the Mediterranean area are looking forwards to implement a specific system of accounting and reporting and change their entrepreneurial culture.

Competitiveness means to enable customers to choose, under the same conditions, the company which offers greater economic benefits without incurring any sacrifice or with minimal effort.

Providing themselves with adequate accounting and non-accounting information system for transmitting outside their results and achievements, SMEs may become visible at the same level of a large company.

GLOBALISATION AND INTERNATIONALISATION: LITERATURE REVIEW

The process of globalisation is of course very complex and multifaceted. In this study we are bound to restrict the focus only to some limited aspects that have strict implications for SMEs competitiveness. However, to this end, we need some background on a few issues and problems raised by the global evolution of markets.

The modern process of globalisation of the world economy had been, and is, in its essence a process of globalisation of markets. Certainly the pace is rapid and has quickened in recent years but the process of greater international economic integration has been underway for decades. In the last 20 years more open economic policies and trade liberalisation worldwide and technical advances, notably in transport and communication have combined to lower costs and accelerated globalisation. Global trade in products and services has been growing at an average 6% since 1990. The most notable elements of the current wave of globalisation are:

1. An unprecedented lowering of trade barriers worldwide.
2. Vastly improved logistics and communications systems available to all companies.
3. The information technology revolution which has opened the way for greater technology and knowledge exchanges and the advent of new types of economic transactions such as e-commerce.

This means that trade can be conducted cheaper, faster, easier and over larger distances and the advent of previously no-available services. But globalisation is not only trade. It also involves foreign direct investments including off shoring and relocation and an increase of all forms of technology transfer and a larger access to markets and suppliers.

Globalisation has effectively “shrunk” the world. Through globalisation national borders are constantly losing their significance as limitations for human interaction in general and for economic collaboration in particular. This means that the natural spheres of activity of all the economic actors expand from national into multinational or even global²⁰⁶.

However, how European SMEs may transform this factors in advantages?

For SMEs globalisation means that the natural or “local” environment grows constantly and brings greater opportunities in the form of larger markets and new suppliers but also threats in the form of wider competition, complexity and shorter product life cycles. Greater integration and reduced barriers mean that international competition starts at home. Even businesses that focus primarily, or even exclusively, on the domestic market have to be competitive internationally in order to secure long-term survival and growth.

²⁰⁶ Karagozoglou, N., and M. Lindell (1998). “Internationalization and Small and Medium-Sized Technology-Based Firms: An Exploratory Study,” *Journal of Small Business Management* 36, 44–59.

Internationalisation is a phenomenon researched intensively over the last few decades from a different viewpoints, including: organization theory, marketing, strategic management, international management, and small business management. Issues such as international decision-making and management, development of international activities, and factors favoring or disfavoring internationalisation have been studied for large as well as small businesses.

Given the nature of today marketplace, SMEs are increasingly facing similar international problems as those of larger firms. For many SMEs, especially those operating in high-technology and manufacturing sectors, it is no longer possible to act in the marketplace not taking into account the risks and opportunities presented by foreign and/or global competition. As a result, discussion about internationalisation in this study needs to cover to some extent, aspects of general internationalisation of both large and small firms, while focusing on the internationalisation of SMEs.

This new, ever changing scenario that is globalisation will require and reward inventiveness, agility and flexibility: the very qualities commonly used to define SMEs. Embracing these qualities means that competitive SMEs will not only be in a position to tackle globalisation but will be able also to gain the benefits from it.

Therefore, a pro-active attitude to global competition and markets is increasingly becoming not a choice but a matter of necessity. Each company must adopt internationalisation as part of the strategic search for the company's competitiveness and not just as a reaction to times of reduced national demand. This implies that continuous technological, managerial and operational innovation inside SMEs will be one of the key tools for their sustainability and growth.

It is reasonable to suppose that benefits of internationalisation do not refer exclusively to exports. Exporting, as the traditional way to internationalise, is still very important, and so importing is not just a source of improved performances through the acquisition of new technology and abilities, because importers tend to be keener/faster exporters²⁰⁷. Other forms of internationalisation such as foreign direct investment (relocation or outsourcing), technology transfers, participation in international value chains, and other forms of inter SME co-operation are gaining ground. In all cases the quest for greater competitive advantage is even more direct: access to other markets is only one motivation usually shared or outweighed by access to technology.

Currently there is no agreed definition of internationalization (Bell and Young, 1998) or international entrepreneurship (Young et al., 2003). Internationalisation has been viewed as the process of increasing involvement in international markets (Welch and Luostarinen, 1988). A distinction can be made between inward and outward activities. Inward processes relating to internationalisation (that is, importers, licensees and franchisees) have received relatively

²⁰⁷ On the direct impact of imports on increased productivity and growth "Imports of services and economic growth: a dynamic panel approach", Xiaoying, L., Greenaway, D. and Hine, R.C., SETI project, May 2003. "Small and medium enterprises internationalization and the influence of importing on exporting" Holmlund, M.; Kock, S. and Vanyuhin, V., International small business journal 2007, Vol. 25, pp.459. Also "Born Globals internationalization in the creative industries", a paper by Professor Staffan Gullandern remarks the crucial causations effects between inward and outward activities

limited attention, despite the belief that many firms begin their first international activity on the inward side (Karhonen et al., 1996; Welch, 2004).

As matter of fact, according to some authorities (Dunning, 1992) *a multinational or transnational enterprise is an enterprise that engages in foreign direct investment and owns and controls value adding activities in more than one country.*

There are strong differences of opinion about what indicators are suitable for measuring corporate internationalisation (Caroli, Fratocchi, 2000). Some authors have sought to develop composite indices of internationalisation that combine several hitherto separate indicators. Ietto Gilles (1998), for example, proposed a composite index that combined the ratio of foreign to total assets, sales and employments with a measure of how many countries the company could be present in if it so wished. UNCTAD (United Nation Conference on Trade and Development, 2007) uses these measures, but in two separate indices of internationalisation: a trans-nationality index (TNI) and an internationalisation index. The former is the average of the ratio of foreign to total assets, sales and employment while the latter is calculated by dividing the number of foreign affiliates by the number of all affiliates. The literature does provide a wide array of possible ways through which internationalization could be measured, some are easier to implement than others. A key factor that determines which measures can and which ones cannot be used is the availability of data.

Following a well established framework in international business literature (Perlmutter, Heenan, 1979: 16; Sullivan, 1994: 331; Bäurle, 1996: 9), we can distinguish structural indicators, performance indicators and attitudinal indicators.

Structural indicators try to give a picture of the international involvement of a company at a certain time. Here we find several indicators that are related to the foreign activities of SMEs such as:

- the number of countries where a company is active
- the number/proportion of foreign affiliates
- the number/proportion of non-capital involvements abroad (e.g. strategic alliances, franchised operations etc.)
- the amount/proportion of foreign assets
- the amount/proportion of value added abroad²⁰⁸
- the amount/proportion of sourcing abroad
- the number/proportion of foreign employees

A second group of indicators describes the internationalisation of the governance structures of a corporation. Relevant indicators here are:

²⁰⁸ Following Schmidt (1991: 57) and Dunning (1992: 7) the value added abroad is the best measure to indicate the economic significance of the foreign activities of an MNC. The amount of value added abroad is calculated as the revenues made by foreign affiliates minus all inputs.

- the number of stock markets on which a company is listed
- the amount/proportion of shares owned by foreigners
- the number/proportion of non-nationals on the board of directors

On the other hand, performance indicators measure the degree of success or failure of corporate activity abroad during a certain period of time (usually one year). The two main indicators are *turnover* and *operating income*. Two issues have to be addressed when considering turnover:

- The first issue is demand. The main question here is, to what extent turnover is generated in foreign countries. The relevant indicator - amount of foreign sales by customer location - is calculated as exports from the home country plus revenues of the foreign affiliates (except those revenues that come from exports to the home country of the parent company).
- The second issue is supply. The main question here is, to what extent business activity is transacted by subsidiaries located in foreign countries. The relevant indicator - amount of sales of foreign subsidiaries - is calculated as the sum of turnover of foreign subsidiaries as a proportion of the sum of turnover of the parent company and its national subsidiaries.

A second important performance indicator is the amount of operating income earned abroad.

This indicator is usually calculated as the sum of operating income generated by all foreign affiliates.

<i>Structural indicators</i>	<i>Performance indicators</i>
<p><u>1. Relating to foreign activities</u></p> <p><i>number of countries a company is active in</i> <i>number or proportion of foreign affiliates</i> <i>number or proportion of non-capital involvements abroad (i.e. strategic alliance, franchised operation, joint venture)</i> <i>amount or proportion of foreign assets</i> <i>amount or proportion of value added abroad</i> <i>amount or proportion of sourcing abroad</i> <i>number or proportion of foreign employees</i></p> <p><u>2. Relation to governance structure</u></p> <p><i>Number of stock markets on which a company is listed</i> <i>amount or proportion of shares owned by foreigners</i> <i>number or proportion of non-nationals in the board of directors</i></p>	<p><u>1. Foreign sales</u></p> <p>Demand: <i>amount of foreign sales by customer location</i></p> <p><i>Exports from the home country</i> + <i>Revenues of foreign affiliates</i> – <i>their revenues from exports to the home country</i></p> <p>Supply: <i>Amount of sales of foreign affiliation</i></p> <p><i>Sum of revenues of foreign affiliations</i></p> <p><u>2. Operating income abroad</u></p> <p><i>Sum of operating income of foreign affiliations</i></p>

Table 5: individual internationalisation indicators

Source: Our illustration based on Dörrenbächer 2000

Traditionally, small enterprises are characterized by lack of transparency in relation to their audience and, moreover, they seem unwilling to account any economic-financial information outward. The accounts are prepared primarily for tax purposes or for purposes of internal control but never to provide information outside, except for what established by the existing regulatory obligations.

Globalisation and its increasing competitiveness, together with socio-cultural changes occurring in the environment, requiring the company a growing ability to communicate with their business partners, as the fulfilment of their information needs; moreover their decision depends on the ability of the company to secure a lasting success.

The importance of corporate communication for managing the external environment is crucial especially for companies that want to grow internationally, where there is a greater competitive challenge and a lack of information on market participants.

Regarding the reasons why SMEs decide to initiate internationalisation processes, many authors (Campebell, 2003; Bonaccorsi, 1994) agreed to support the prevalence of reactive motivations, as the fruit of the awareness of being able to use resources and expertise for international expansion implementation.

Concerning the way through which SMEs realize their presence in the international context, several studies highlight that internationalisation with low levels of involvement forms is prevalent, especially indirect exports made through a commercial intermediary managing exports flow, placement in foreign markets and customers relationships. In this case SMEs involvement abroad is highly limited, experiencing a situation of passive internationalisation because it lacks direct contact with foreign market.

On the other hand, more complex internationalisation forms such as strategic alliance, franchised operations and joint venture are less common among SMEs.

This analysis is a necessary step to establish the relationship between accountability degree and degree of internationalisation (DOI). Indeed, as firms increase the share of their operations abroad, they experience higher levels of performance increasing their DOI.

In order to analyse the tendency to give economical-financial information to foreign interlocutors there are two objectives to pursue:

- a more general objective, concerning the examination of the ways through which SMEs are present in the markets abroad and the reasons bringing those enterprises to widen their range geographically;
- a more specific objective, concerning the possibility to identify relations between level of involvement abroad and economical-financial communication processes towards foreign interlocutors.

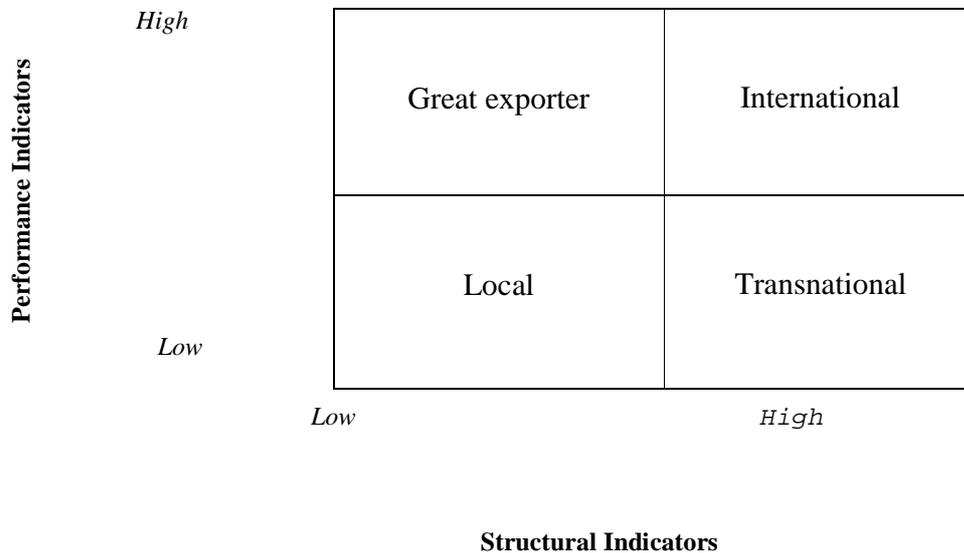


Figure 1 – Foreign sales/Involvement abroad matrix

Reference: Our illustration

It is important to recognize that research relating the SMEs internationalisation is associated with several methodological problems. Some studies are not keyed into debated relating to the internationalisation of private smaller firms as opposed to larger multinational firms. There are also a number of concerns surrounding the size and representativeness of sample, the techniques used, and the validity and reliability of measures operationalized in SMEs studies. Particular problems relate to establishing whether there is a causal link between internationalization and firm performance.

However, it reasonable to suppose that SMEs that having an high propensity to export and establish a widespread presence in the international context should be considerate such as international. This shows a good ability to overcome barriers of access to different international markets and manage the complexity associated with the plurality of relations with countries culturally very different.

THE ECONOMIC-FINANCIAL REPORTING IN SMEs: THE ACCOUNTABILITY SYSTEM ROLE

Financial and economic reporting is a key component of the relationship between the firm and the environment in which it operates (Branciarri, 1988, Adamo, 2006). Therefore, this process become an indispensable resource for any company (regardless of size, legal form or business) which wants to operate in a global context.

Until some times ago, financial reporting for small Italian firms was restricted to strike a balance sheet according to civil and tax laws requirements (Capaldo, 1981, Capodaglio, Ricci, 2008).

In the study about balance, it was considered just a means to measure income and it had a prevailing internal function without considering its public role for external and internal stakeholders.

The low level of financial reporting and economic information are often considered one of the main causes of the financial problems for smaller firms, especially to obtain long-medium-term loan by bank and private or public financiers. For this and other types of reasons, SMEs which would become *large* and relevant in the local and international market have to create and implement an adequate accountability system composed of all kinds of economic-financial tools of reporting and communication. In fact, an approach to a reporting model that is not restricted to only economic and financial indicators, allows SMEs to demonstrate the wealth and value created for the entire network of internal and internal stakeholders. A suitable accountability system may improve managers social responsibility and responsiveness toward their stakeholders allow them able to evaluate the actions taken and results achieved.

According to some authoritative doctrine (Ricci, 2005, Buccellato, 2004, Pulejo, 2001) the term accountability, widely used in recent years, draws the firm ability to permit stakeholders to assess firms performances, in order to adequately empower business decision makers. Accountability evokes a set of ideas closely related to each other (Molteni, 2000):

- Autonomy and freedom of government and company management operating in a market economy;
- Firm responsibility towards its stakeholders;
- Firm responsibility and accountability towards achieved results.

The conditions in which assessments are produced depend on the quality of the firm accountability system. Factors which contribute to determine the accountability of a company are²⁰⁹:

1. a clear and thorough programming process;
2. a clear definition of internal and external duties;
3. a suitable accounting system;
4. an effective internal system for control and evaluation;
5. a periodic informative activity about company management;
6. the use of benchmarking procedures;
7. the use of up-to-date technology in the communication process.

²⁰⁹ Ricci P. *Enti strumentali regionali e loro accountability. Il caso Campania*, Franco Angeli, Milano, 2005, p. 14

Thinking of an extended accountability system it includes all tools and documents that provide information and comments about company performance in different ways and with a different degree of insight and detail (Terzani, 2002), such as balance sheet, period analysis, periodic reports, budgets over one or more years, financial and economic programmes, strategic and executive plans, social balance. Only an intense stimulus towards a suitable accountability system may actually improve the company's network of relations and to boost its reputation and credibility.

Given this brief introduction, and considered needs and market characteristics of the Mediterranean area, SMEs must focus on the relationship between the degree of accountability and their capability to influence the development processes on national and international scale, and look forward to becoming *large* through appropriate skills and competencies. To evaluate the degree of accountability, it's possible to use a scale of values for the factors described above.

1. A clear and thorough programming process

Using a scale from 1 to 5, we can assign 1 to enterprises with the lowest planning ability and the smaller communication tools and 5 to enterprises with the highest planning ability and the larger communication tools (Book keeping, Financial Program):

2. A clear definition of internal and external duties

Using the same scale from 1 to 5, we can assign 1 to enterprises with short system of duties definition and lack credibility in their own actions, while we can assign 5 to enterprises which develop and enforce their specific duties at all levels of the hierarchical organizational structure.

3. A suitable accounting system

Using the same scale from 1 to 5, we can assign 1 to enterprises with a poor accounting system and few financial reporting document addressed primarily towards internal communication, while we can assign 5 to enterprises which have an advanced reporting system with innovative tools of social and economic communication (Social Report, Budget, Environmental Balance, Cost Accounting)

4. An effective internal system for control and evaluation

Using the same scale from 1 to 5, we can assign 1 to enterprises without any degree of control and internal evaluation system, while we can assign 5 to enterprises with dedicated internal audit function through tools and specialized staff (controller role).

5. A periodic informative activity about company management

In a scale from 1 to 5 we can assign 1 to enterprises where any form of communication and comparison between operational and management is provided, while we can assign 5 to enterprises which have an extraordinary commitment to management information and check the actions implemented.

6. The use of benchmarking procedures

In a scale from 1 to 5 we can assign 1 to enterprises which haven't any responsibility about their performance and don't measure their results, while we can assign 5 to enterprise which

consider performance measurement a necessary priority and compare their own performance with the best practices of other leading companies in the relevant market.

7. The use of up-to-date technology in the communication process

Using the usual scale from 1 to 5 we can assign 1 to enterprises which have only few instruments of communication and we can assign 5 to enterprises which have sophisticated and appropriate tools and technological systems to communicate information to internal and external stakeholder.

Enterprises with higher rating on these factors should match the best processes of assessment and accountability, increasing internal levels of trust and cooperation and implementing a network of relationship with their own stakeholder. An accountable enterprise is therefore an enterprise responsible and transparent towards its stakeholder about undertaken actions and achieved goals.

Accountability is a strategic action to promote market development and growth of the environment in which the company operates. To measure the degree of accountability is possible to identify several socio-economic reporting tools (see Table 3).

	1	2	3	4	5
<i>A clear and thorough programming process</i>	BALANCE SHEET	--	--	--	FINANCIAL PROGRAM BUDGET STAKEHOLDER MAP
<i>A clear definition of internal and external duties</i>	ORGANIZATIONAL STRUCTURE	--	--	--	JOB DESCRIPTION LABOUR SHARING ORGANIZATIONAL STRUCTURE
<i>A suitable accounting system</i>	BOOKKEEPING SYSTEM BALANCE SHEET	--	--	--	COST ACCOUNTING BUDGETS ENVIRONMENTAL BALANCE
<i>An effective internal system for control and evaluation</i>	BALANCE SHEET	--	--	--	RULES SYSTEM STOCK OPTION CONTROLLER ETHICAL CODE
<i>A periodic informative activity about company management</i>	REPORTING	--	--	--	SOCIAL REPORT PERIODIC REPORTS ENVIRONMENTAL BALANCE
<i>The use of benchmarking procedures</i>	FINANCIAL REPORT	--	--	--	SOCIAL REPORT PERFORMANCE INDICATORS
<i>The use of up-to-date technology in the communication process</i>	COMPUTER PROCESSOR	--	--	--	ICT INNOVATIVE COMPUTER PROCESSOR

Table 6 – Tools measuring accountability degree

Reference: Our illustration

It should be stressed that, given the complexity of the topic, the analysis will be carried out not on the measurement of quality of these instruments, but on their presence and on the activation of some processes of accountability due to the seven factors described above.

TO BE GLOBAL FOR ITALIAN SMES IN THE MEDITERRANEAN AREA: GENERAL IMPLICATIONS

An enterprise that is really internationalised according to the indicators set out before (paragraph 2) cannot be defined global without implementing any accountability process. SMEs with their small size may become *large* only if they will be able to impact on national or international context in which they operate. To be global it's not enough fostering high profit increasing output on the international market, but is necessary to create positive outcomes on

the environment where they decide to live through, for example, strategic alliance and joint venture with foreign partners.

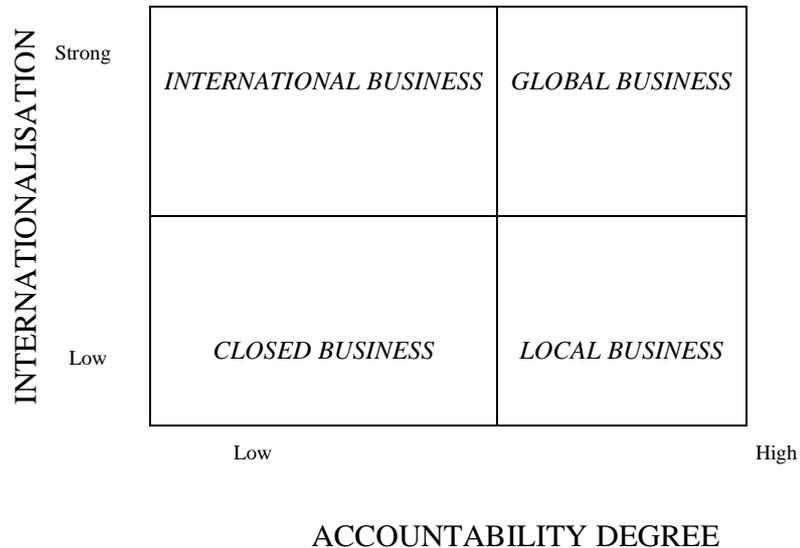


Figure 2 – Internationalisation/accountability degree matrix

Reference: Our illustration

According with our hypothesis, international SMEs are those which have an high propensity to export and establish a widespread presence in the international context, a good ability to overcome barriers of access to different international markets and manage the complexity. The internationalisation process is therefore, at the same time, effect and cause of SMEs development.

The ability to create collaborative relationships with foreign partners, in the case of small companies is even more important because they require an external network that can make up for limited financial resources and structural deficiencies in staffing.

The communicative behaviour of small businesses, necessary to obtain the consent of the principal foreign partners (primarily lenders and potential customers), urges SMEs to conform to communicative standard far higher than those provided by the law.

Furthermore, Italian SMEs able to obtain accreditation in the foreign market and earn the trust and cooperation from foreign partners may enjoy several economic and financial benefits, such as:

- easier access to credit and smaller price of money;
- lower operational costs;
- better business reputation and credibility;
- full stakeholders confidence;

- established relations with local authorities (partnerships).

Concluding, we can see that the legitimacy of the company in the foreign market facilitates the creation and distribution of value created but, at the same time, it must be the company able to create his new identity becoming activated part of the reference context, adapting its culture and its values, establishing and strengthening positive relationships with old and new stakeholders.

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COMPETITIVE STRATEGY AND PERFORMANCE OF CAMPANIA WINE FIRMS

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Purpose - The aim is to analyze the corporate performances to verify the success (or not) of strategic process of Campania wine firms. The study focuses on competitive strategies realized to achieve a sustainable and durable competitive advantage (Porter, 1985). During the last few years the wine world is interested to a process of accelerated change due to different configuration that the wine geography has had either from the demand side or the supply side.

Methodology - The study is an exploratory survey (Selltitz, Wrightsman, Cook, 1976) with deductive method. The contents of survey should be exposed in specific questions:

what are the criticality of Campania wine system?

what are the strategies adopted and the performance obtained from regional firms?

which actions can be implemented to compete with the biggest national and international companies?

After the problem definition and development of research questions, the second phase of the research involves the critical choice of research hypothesis. The strategic management process is measured with the following issue:

sales growth rate,

profitability,

leverage.

On these paper are developed the following hypothesis:

H1. International listed wine firms and leading Italian wine makers achieve a higher growth rate in sales than Campania wine enterprises,

H2a. International and Italian wine firms achieve a higher growth rate in Return On Investment rate (ROI) than Campania wine firms,

H2b. International and Italian wine firms achieve a higher Return On Equity rate (ROE) than Campania wine makers,

H3. Campania wine firms use debt more than international listed wine firms and leading Italian wine makers.

Findings - In the new competitive environment Italian and Campania wine industry has showed structural weaknesses: a lot of wine enterprises are incapable to realize an optimal strategic process and this has negative reflex on performance. However in the regional context there are also successful firms able to develop and implement competitive and marketing strategies adapted to sector change.

Research Limitations - This is an exploratory study and the results represent a base for further analysis.

Managerial Implications and Originality

The principal managerial implications are the following:

the key of good performance is a correct and formalized strategic process,

Campania wine makers should continue to valorize their autochthones wines,

Campania wine firms should review their investments (investment in tangible assets should be supported with investments in R&D that are important to realize product and process innovations),

it's important the involvement of public institutions to realize merger and acquisition (M&A) processes and to create and support social capital nets,

the ultimate goal should be to have a systematic view, where the system is the territory in which there is confluence of grapes, land and human and social factors.

This survey has tried to make a minimal innovative contribution and could be represent a starting point for strategic planning firms responsible and for policy makers that are interested to develop the regional wine sector.

Key Words: competitive strategy, performance, wine firms, marketing, financial structure

THE NATIONAL AND INTERNATIONAL SCENARIO

During the last few years the wine world is interested to a process of accelerated change due to different configuration that the wine geography has had either from the demand side or the supply side. These considerations are confirmed by Organisation Internationale de la Vigne et du Vin (OIV), which, for 2007, has calculated global wine production in 266.1 million hectoliters, down 6.6% on the 284.8 million hectoliters recorded in 2006 and down 10% on the 296.8 million hectoliters produced in 2004. The 61% of production is realized by European Union countries with a predominant role of three countries: France, Italy and Spain. Italy, along with France and ahead of Spain, is the leading world producer with a market share of 17.5% of world production and 29% of European production.

However in the last years wine production has interested countries that do not have a winemaking tradition. They are all those countries named New World Countries (Australia, New Zealand, South Africa, Argentina, United States and Chile) where there are lots of large size firms that have obtained good performance and high market shares using intensive production techniques and targeted marketing policies.

For these reasons the main non European producers could be considered the United States, which recorded growth of 3% in 2007 (estimates for 2008 suggest further growth of 2%), followed by Argentina, which reported volumes virtually flat from 2004 to 2007 (a slight reduction of just 2.5% is expected in 2008), and Australia, which, with volumes flat from 2004 to 2006 and following a 33% decline in 2007 due to the drought conditions, posted 22% growth in 2008; whereas South Africa was stable, and in the last year should approach 10 million hectoliters of produce.

The international scenario shows EU production falling in 2007 (from 176.8 million hectoliters in 2006 to 161.3 million), with a further contraction of around 1% estimated in 2008 to reach approximately 160.1 million hectoliters. Italian wine production in 2007 totaled 46.6 million hectoliters, around 10% less than in 2006. The output for 2008 is estimated by the OIV to be more or less stable, with an increase of just 1% compared with the previous year's vintage. The value of Italian wine production in 2007 may be estimated at €8.3bn (production prices) and apparent consumption at €5.2bn. The *Denominazione di Origine Controllata e Denominazione di Origine Controllata e Garantita* (DOC-DOCG²¹⁰) wine production share has declined (-3.7%) and the estimates of ISTAT²¹¹ indicate that it represent only 33% of total production in 2007 (but in 80s DOC-DOCG wine represented only 10% of total production). Another 28% of production is

²¹⁰ Italian wines which are grown in certain specified areas and which conform to certain regulations may be styled DOC (*Denominazione di Origine Controllata*). The classification DOCG (*Denominazione di Origine controllata e Garantita*) is awarded to DOC wines of particular quality. Wine must conform to the DOC criteria for at least five years before they can be classified as DOCG.

²¹¹ ISTAT is the Italian national statistical institute.

represented by *Indicazione Geografica Tipica* (IGT²¹²) wines (also decreased of 4.5% compared to 2006).

A significant part of country's production is exported, with a surplus of 3.2 billion in 2007 (in 1990 the surplus was only 760 million euros). The reasons of positive performance of Italian foreign trade are the reduction of prices and the augmentation of volumes.

In 2007 sparkling wines, DOC and DOCG wines accounted for some 54% of the income from exports (compared with 55% in 2006, 59% in 2004 and 63% in 2003). For 2008 ISTAT's provisional data suggest that in terms of value exports should increase by 1,7% while falling by 7% in terms of quantity.

In this new competitive environment there are many changes in firms structures and competitive strategies; with these changes it's possible to recognize three groups of wine firms:

- global enterprises, active in all segments of the beverage industry;
- large national wine enterprises, focused on wine production and that operate in an international context;
- SMEs with niche strategies.

The Italian wine industry has structural weaknesses that need a solution. These considerations are true also for Campania wine sector, characterized by a presence of a high number of micro-enterprises²¹³.

In this research are emerged difficulties of Campania wine firms: most regional wine enterprises are incapable to realize an efficient strategic process adapted to changed context and this has also negative reflex on performance. However in the regional context there are also successful firms able to develop and implement competitive strategies adapted to sector change and so capable to obtain significant performance.

THEORY, RESEARCH HYPOTHESES AND METHODOLOGY

Increasing worldwide competition emphasizes the importance of strategic management process in modern organizations. According to Harrison, strategic management is a "process through which organizations analyze and learn from their internal and external environments, establish strategic direction, and implement those strategies, all in effort to satisfy key stakeholders" (Harrison, 2003: 4). After formulation and implementation of strategies it's important to develop a system of controls. For this reason it's important to start by considering basic financial planning and, over time, develop methods more closely aligned with the strategic management process.

The paper aim is to analyze the strategic choices of Campania wine firms, through the analysis of strategic management process and performance. The study focuses on competitive

²¹² IGT is the second of four classifications of wine recognized by Italian government. IGT wines are labeled with the locality of their creation, but do not meet the requirements of the stricter DOC or DOCG designations. In wine terms, it is considered the rough Italian equivalent of the French *vin de pays* designation.

²¹³ Micro-enterprises are all enterprises with less than 10 employees and turnover less than 2 million euros.

strategies because in SMEs, that characterize Campania wine sector, there isn't difference between corporate and competitive strategy because in many cases they are mono-product firms. Besides the decision to investigate competitive level is that competitive analysis is productive not so much at corporate level, but at business level (Rispoli, 1992).

In this paper strategic analysis of Campania wine firms is followed by a performance and capital structure analysis. Since the Modigliani and Miller seminal article (1958), researchers have tried to explain how firms choose their capital structure. The interest exist because if an optimal structure can be identified a firm could maximize its value maintaining that financial mix. Analysis and review of different approaches in literature confirm an optimal composition of financial sources. This must be compatible with the strategic profile of the firm in order to take part in the value creation process.

On these statements we have defined alternative research questions:

- what are the criticality of the Campania wine system?
- what are the strategies adopted and the performance obtained from regional firms?
- what is the capital structure of Campania wine firms?
- what actions can be implemented to compete with the biggest national and international companies?

The answer to research questions has needed:

- the strategic analysis of the sector (to identify strengths, weaknesses, opportunities and threats),
- the performance analysis of major International listed wine companies and leading Italian wine-makers,
- the performance and capital structure analysis of Campania wine firms,
- the identification of critical factors of regional wine firms.

After the problem definition and development of research questions, the second phase of the research involves the critical choice of research hypothesis.

Studies in the management field recognize the existence of several performance measures, such as market share, growth, profitability, customer satisfaction (Hitt et al., 1998; Lumpkin and Dess, 1996). In this paper strategic management process is measured with the following issue:

a) *sales growth rate*: in today's rapidly changing environment, companies often have to grow quickly in order to survive and one method of achieving rapid growth is through acquisitions. Often the most effective way to deal with a competitor, or prospective competitor, is to buy it. Public companies can use their shares as a currency to make acquisitions. This leads to the following hypothesis:

H1. International listed wine firms and leading Italian wine makers achieve a higher growth rate in sales than Campania wine enterprises,

b) *profitability*: the prediction here is less straightforward. If from a side managerial efficiency could be improved by more appropriate compensation package with stock options or other remunerations linked to share price, from another side too much emphasis on the stock price could result in misleading attention to short-term performances. Furthermore, the managerial incentives could be higher in SMEs, where most of potential pay-off through to the controlling shareholders (DeAngelo et al., 1984). Therefore the following hypothesis are somewhat unpredictable:

H2a. International and Italian wine firms achieve a higher growth rate in Return On Investment rate (ROI) than Campania wine firms,

H2b. International and Italian wine firms achieve a higher Return On Equity rate (ROE) than Campania wine makers,

c) *leverage*: as private firms face significant constraints in raising outside equity, it is very likely that their financial structure were unbalanced toward the debt. SMEs, especially during growth periods, usually stretch their debt capacity to the limit. Thus it can be assumed that leverage is higher for Campania SMEs. Therefore:

H3. Campania wine firms use debt more than international listed wine firms and leading Italian wine makers.

This research is an exploratory research (Selltitz et al., 1976; Tsetsekos, 1993) because the aim is to explore the strategic management process, performance and capital structure of Campania wine firms. One of attractive features of this research is to identifies isolates variables and relationship for further analysis and research.

One of the first step was the collection of secondary data of the major wine companies present in AIDA (Bureau Van Dijk), Mediobanca²¹⁴, ISTAT, INEA²¹⁵, ISMEA²¹⁶ and Campania Region databases. The acquired data has helped to define the context of research: number of firms, size, capital structure, performance.

The primary data were collected through two instruments:

- survey analysis;
- case study analysis.

The dual level of analysis – sample and single firm - has made possible to obtain valuable information for entrepreneurs and policy makers that would like to revitalize the territorial context. Finally there are developed innovations hypothesis that can guide the firms to implement development processes appropriate with available resources.

This study uses both methods to collect data: qualitative and quantitative. Specifically, the quantitative analysis, that is a mono-variable and bi-variable statistical analysis of data, has had the objective to transform the information into variables, while the qualitative analysis was an

²¹⁴ Mediobanca is the leading investment bank in Italy.

²¹⁵ INEA is the Italian national agriculture institute.

²¹⁶ ISMEA is the Italian national agriculture and food services institute.

analysis of content, realized with the documentation acquired on field and organized with a thematic criteria related to the initial research hypothesis.

THE INTERNATIONAL AND NATIONAL ANALYSIS

To verify the competition in the wine sector, is useful to determine the sector attractiveness level and then analyze the performance of the leading international and Italian wine firms. For these reasons are very useful data produced by Mediobanca in Wine industry survey 2009 (data processed at 2007).

The attractiveness sector

Strategy is based on competition because without it strategy doesn't mean nothing. Before making decisions is important to think the reactions of competitors, for each action. The basic premise of sector analysis is that industry profitability level isn't an historical accident or the result of specific influences into a sector, but is determined by the characteristics of the sector structure. According to Porter the sector attractiveness, is determined by the profitability that firms can achieve in the sector (Figure 1) and usually this is measured with return on capital invested (ROI) (Grant, 1994).

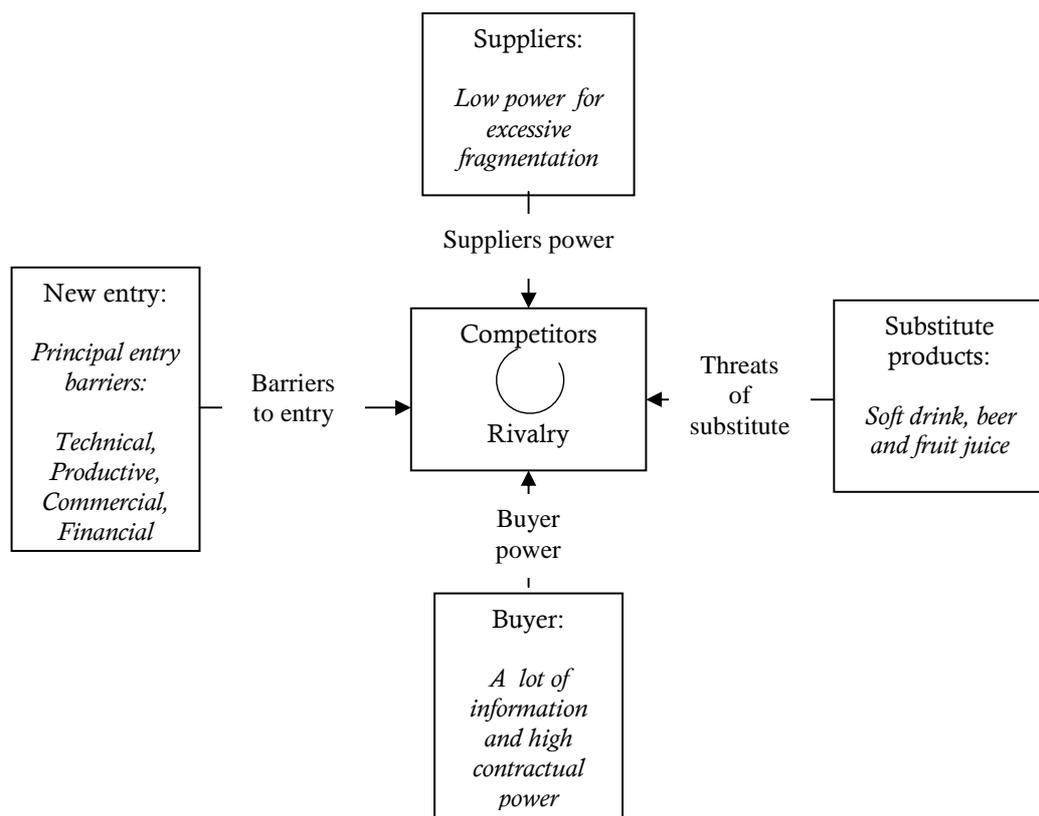


Figure 1 Diagram of Porter's Five Forces applied to wine sector. Source: data processed by Porter, 1980

In fact a sector has a catalytic role on the firms where there is the possibility to achieve a ROI greater than the capital cost. The Italian wine industry has a good rate of return on investment (6.3%) however it's lower than the beverages firms (9.2%) and than the Italian industrial firms (13.0%) (Mediobanca, 2009). This gap may be explained by the hyper-competition that characterizes this sector at national and global levels. If we consider the effect of entry and exit barriers it is possible to determine the competitive pressure degree in wine sector. Those barriers are different mechanisms that have correlations: the conjoint presence gives different combinations of risk/profitability.

The wine sector presents a low and risky profitability (Figure 2) because there are low entry barriers (the new entry, called New World Producers, are a demonstration) that don't protect firms present in the sector and ensuring only a satisfactory profitability (not high), and high exit barriers which don't allow disinvestment (the wine sector requires specific investments) and that don't allow elimination of marginal producers.

		<i>Exit barriers</i>	
		<i>Low</i>	<i>High</i>
<i>Entry barriers</i>	<i>Low</i>		<i>Low and risky profitability</i>
	<i>High</i>		

Figure 2 Competitive pressure degree in wine sector. Source: data processed by Porter, 1980

International Listed Wine Companies

The Wine industry survey 2009 has realized a performance analysis of aggregate accounts of a panel of nine international groups with turnover above €200m, all of which make and/or sell wine and are listed on global stock markets. The results cover the period from 2001 to 2007 (Table 1).

It should be noted that there was a reduction in turnover, which declined by 10.3% from €8.6bn in 2006 to €7.7bn in 2007²¹⁷. The most dynamic sales growth shown was by Chinese group Yantai, which delivered a 36% increase on the back of strong growth in domestic demand (with the Chinese market accounting for over 90% of the company's total sales), followed by Chilean wine-maker Vina Concha y Toro which reported a 23.3% increase, and for which exports, which represented 81% of turnover, were up 28% in terms of volumes (with sales to Europe and Asian in particular)²¹⁸.

<i>Company</i>	<i>Country</i>	<i>Financial year ends</i>	<i>Turnover (in € '000)</i>	<i>Wine as % of turnover</i>	<i>Export as % of turnover</i>
<i>Foster's Group</i>	<i>Australia</i>	<i>30 June 2007</i>	<i>2.718.864</i>	<i>51,5</i>	<i>(1)36,8</i>

²¹⁷ This contraction was entirely attributable to Constellation which deconsolidated some of its activities in 2007 which reported 2006 sales amounting to €1.3bn.

²¹⁸ This information is important to understand how different strategic choices are possible to pursue a sustainable competitive advantage. In fact the success is related to analysis of internal and external factors, of market trends and opportunities in the new competitive environment.

<i>Constellation Brands</i>	<i>U.S.</i>	<i>28 February 2008</i>	<i>2.563.005</i>	<i>89,0</i>	<i>46,2</i>
<i>Distell Group</i>	<i>S. Africa</i>	<i>30 June 2007</i>	<i>621.273</i>	<i>n.d.</i>	<i>18,9</i>
<i>Vina Conchay Toro</i>	<i>Chile</i>	<i>31 December 2007</i>	<i>389.874</i>	<i>100,0</i>	<i>80,5</i>
<i>Boizel Chanoine Champagne</i>	<i>France</i>	<i>31 December 2007</i>	<i>359.420</i>	<i>100,0</i>	<i>39,0</i>
<i>Vrnaken Pommery</i>	<i>France</i>	<i>31 December 2007</i>	<i>286.830</i>	<i>100,0</i>	<i>43,7</i>
<i>Sektkelleri Schloss</i>	<i>Germany</i>	<i>30 June 2007</i>	<i>281.327</i>	<i>79,9</i>	<i>61,3</i>
<i>Yanatai Changyu Pionner Wine</i>	<i>China</i>	<i>31 December 2007</i>	<i>253.912</i>	<i>78,8</i>	<i><10</i>
<i>Laurent Terrier</i>	<i>France</i>	<i>31 March 2008</i>	<i>249.430</i>	<i>100,0</i>	<i>67,2</i>
TOTAL			7.723.935	69,8	42,0
<i>(1) Does not include Asia and the Pacific, which are considered as home country</i>					

Table 1. International listed wine companies Source: data processed by Mediobanca, 2009

In 2007 the main earnings margins (expressed as a percentage of turnover), were systematically higher than those for the previous year. Net profit halved as a percentage of sales, however, from 12.9% in 2006 to 5.9% in 2007. The most profitable company in 2007 measured by net profit as a percentage of turnover was Yantai with 23.3%, followed by Foster's at similar levels (21.2%). The Return On Equity for the aggregate in 2007 was 7.5%, down sharply from the 21.3% posted in 2006 due to the one-off charges taken by Constellation; Yantai stood out also in terms of average of ROE with 19%, behind only Foster's (21%) and ahead of Distell (17%) and Vina Concha y Toro (14.3%). Net equity proved to be smaller than borrowings, with the net worth/borrowings ratio standing at 88.9%, the lowest in the entire 2001-2007 period and far from the high of 126% reached in 2002. Still in 2007, net equity stripped of intangible assets did not even reach one-seventh of total outstanding borrowings, representing just 13.3% of them in percentage terms, down 24 points from 2001, and here again recording a low for the 2001-2007 period²¹⁹.

Leading Italian wine-makers

For the ISTAT analysis methods and for particular structure of domestic wine sector isn't possible to have accurate data on Italian wine-makers. However interesting data emerge from a Mediobanca's Wine industry survey 2009, carried out on 97 main Italian companies (Figure 3) operating in the wine sector that represent 48% of national wine production and 53% of total exports²²⁰.

²¹⁹ Mediobanca (2009), *Wine industry survey*, p. 14.

²²⁰ Mediobanca (2009), *Wine industry survey*, p. 5.

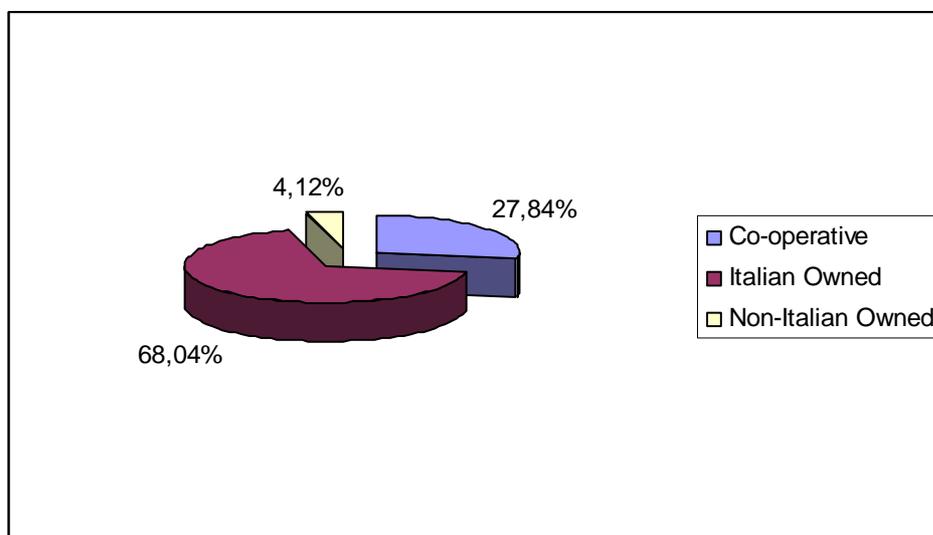


Figure 3 Legal status of population firms. Source: data processed by Mediobanca, 2009

The top five Italian wine-makers by turnover includes four co-operatives (Table 2).

	Registered Office	Turnover 2008 (€ M)	Ownership Structure
GIV – Gruppo Italiano Vini	Calmasino (VR)	288,0	Co-operative
CAVIRO	Faenza (RA)	281,3	Co-operative
CAVIT (*)	Ravina (TN)	154,8	Co-operative
Mezzacorona (*)	Mezzacorona (TN)	142,5	Co-operative
P. Antinori	Firenze	138,3	Family-owned ²²¹

(*)Cavit's financial year ends on 31 May and Mezzacorona's on 31 August.

Table 2. Top five Italian wine-makers by turnover (2008) Source: data processed by Mediobanca, 2009

The first important indicator is sales growth rate, which in 2007 is increased by 6.6%: the co-operative companies were slightly less dynamic, registering an increase of 4.7%, whereas the other Italian companies were more so, with growth of 6.9%; the four non-Italian companies reported a strong increase, of 23%. In 2007 the 97 companies under review here posted average turnover of €41.6m with an average headcount of just over one hundred staff. The Return On Investment came in at 6.3%, down 0.7 percentage points versus 2006 and returning to 2004-2005 levels, whereas ROE diminished from 6.0% to 4.1% (2.5 points below the high recorded in 2005). These indicators' performance was driven by trends in operating costs and taxation: ROI suffered from the decrease in margins and was hit by the new increase in capital invested, driven by substantial capital spending (€242m, near to the 2004-2005 average figure following

²²¹ A family-owned firm is a firm in which one or more members of one or more families have a significant ownership interest and significant commitments toward the business' overall well-being.

the high recorded in 2006); whereas ROE was reduced by higher labor costs and interest expense, as well as by the higher incidence of tax rate.

The breakdown of the companies covered in this survey by ownership structure shows that the cooperatives and non-Italian-owned companies were the least profitable in terms of Return On Equity: the former, for obvious reasons, do not offer many of the upstream phases in the production filière (shareholders produce grapes and wine which transfer to co-operative firms for further processing and sale), whereas the latter have limited commercial operations, being structured mainly suppliers to non-Italian sales networks controlled by their parent companies. The financial structure is also uneven: given that net equity chiefly consists of those fixed assets which are typical of the upstream phases of the wine-making filière (i.e. land and property), the co-operatives appear to be relatively under-capitalized: the net worth/borrowing ratio standing at about 59%.

The 97 companies at end-2007 had capital invested of approximately €4.4bn on their book, but the survey shows that the companies' relationship with financial markets continues to be negligible; only six out of the companies included in this survey have an interest in the stock market, but indirectly.

This analysis shows that the competitive success isn't linked to size structure. In fact specialization and flexibility represent the right way to obtain significant profitability: the success is linked to the entrepreneurs ability able to find unexplored market opportunities, realizing strategies able to exploit the Italian typical wines.

THE CAMPANIA WINE SECTOR

Campania is a region with a wine tradition of ancient origin and it's one of the first and most important centers of settlement, cultivation and study of the wine in the world.

The most dedicated area in Campania is Avellino's province, but Benevento's province is the area that has the largest extension of wine grape with 11.226 hectares, followed by Avellino (7.519 hectares), Salerno (6.079), Caserta (5.135) and Naples (2.557) (ISTAT, 2003).

The productive structure is composed by less than 2.000 transformation firms that are concentrated in Avellino and Benevento (90%) (Pomarici et al., 2006). The enterprises that produce wine only for auto-consumption, with a production capacity less than 100 hectoliters, representing the majority of Campania wine firms (84%). The artisan enterprises (that produce between 100 and 500 hl) are about 370 (9% of total), while medium and large enterprises (that produce more than 500 hl) are only 140 (7%) (Pomarici et al., 2006).

The 61% of medium-large firms are agricultural, for 35% industrial and only 4% are co-operative. In Benevento's province there are four of the six regional co-operative firms, the other two are located in Avellino and Salerno's provinces.

In Campania there are 325 firms with commercial orientation but a significant number sells its wine to other firms. However there is a contraction of this phenomenon: actually the enterprises that commercialize wine with their own brand are 236 (with a growth of 34.09% between 2003 and 2006). This is sign of a dynamic situation and Campania is the only region of South of Italy that have an increase so remarkable.

The territorial distribution of firms that produce with own brand see at the first place Avellino (28%), followed by Naples (25%), Benevento (23%), Caserta (14%) and Salerno (10%). Most of these firms have a production between 100,000 and 1,000,000 bottles (Pomarici et al., 2006). The regional classification for productive capacity see in the first five places four co-operatives firms, three of these are located in Benevento's province (Table 3).

These firms express 40% of Benevento's province production capacity while Avellino's province presents the three largest private enterprises.

<i>Companies</i>	<i>Registered office</i>	<i>Ownership structure</i>
<i>La Guardiense e Janare</i>	<i>Guardia Sanframondi (BN)</i>	<i>Co-operative</i>
<i>Cantina Sociale di Solopaca</i>	<i>Solopaca (BN)</i>	<i>Co-operative</i>
<i>Vinicola del Sannio</i>	<i>Castelvenere (BN)</i>	<i>Family-owned</i>
<i>Cantina del Taburno</i>	<i>Foglianise (BN)</i>	<i>Co-operative</i>
<i>Val Calore</i>	<i>Castel San Lorenzo (SA)</i>	<i>Co-operative</i>
<i>Matilde Zasso</i>	<i>Pozzuoli (NA)</i>	<i>Family-owned</i>
<i>Feudi di San Gregorio</i>	<i>Sorbo Serpico (AV)</i>	<i>Family-owned</i>
<i>Mastroberardino</i>	<i>Atripalda (AV)</i>	<i>Family-owned</i>
<i>La Vinicola del Titerno</i>	<i>Massa di Faicchio (BN)</i>	<i>Family-owned</i>
<i>Grotta del Sole</i>	<i>Quarto (NA)</i>	<i>Family-owned</i>
<i>Antica Hirpinia</i>	<i>Taurasi (AV)</i>	<i>Co-operative</i>
<i>Colli Irpini Monte Sole</i>	<i>Montefusco (AV)</i>	<i>Family-owned</i>
<i>La Vinicola del Vecchio</i>	<i>Telese Terme (BN)</i>	<i>Family-owned</i>
<i>Cantine Federiciane</i>	<i>Marano (NA)</i>	<i>Family-owned</i>
<i>Romano Foravate</i>	<i>Ottaviano (NA)</i>	<i>Family-owned</i>

Table 3 Top fifteen Campania wine-makers by productive capacity Source: data processed by Pomarici et al., 2006

THE MAIN RESULTS OF SURVEY

The survey was conducted on a population of 180 companies that include all companies that:

1. commercialize wine with own brand,
2. at least have 100 hl of production capacity.

The 94.44% are production firms and only the 5.56% are transformation firms. The territorial distribution of firms shows a predominance of Avellino, followed by Napoli, Benevento, Salerno and Caserta (Figure 3).

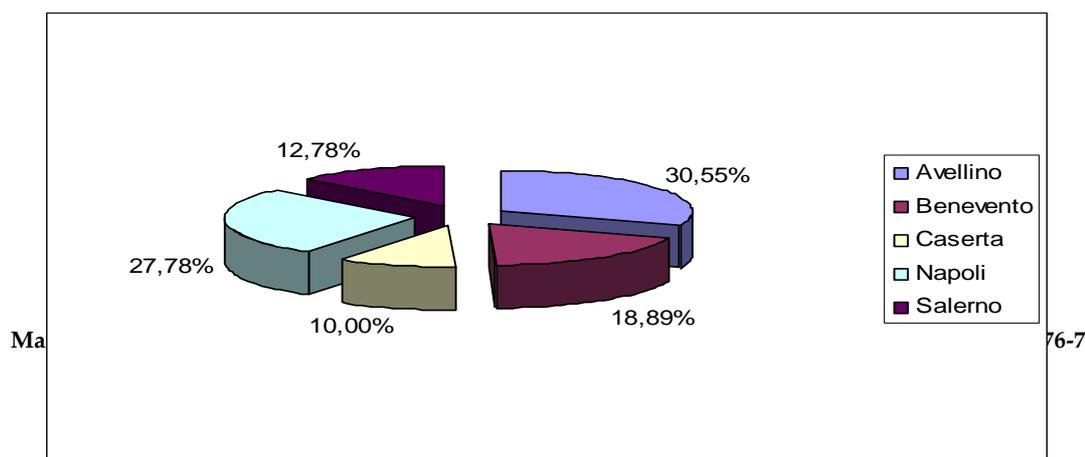


Figure 3 Territorial distribution of population firms. Source: data processed by www.vinocampania.it

Avellino's province presents the largest number of transformation firms (60%), followed by Naples' province (30%) and Benevento's province (10%).

One of the first structural characteristic of regional wine industry is the strong integration with the primary sector (Rossi, 2008). In fact almost all enterprises have own acres, however, those are insufficient to the realization of production and so the external contributions become very important.

The survey has interested 30% of population enterprises. Regarding the ownership structure it's possible to recognize two categories:

- family owned firms (88.89%),
- co-operative firms (11.11%).

Into family owned firms there are three different legal status:

- company (48.15%),
- sole trader (25.92%),
- partnership (14.82%).

One of the first results is the small size of wine firms. The 70.37% of enterprises have a turnover less than one million euros. The small size is confirmed also by number of employees who, in 79.63% of cases, is less than 10 units: Caserta, Salerno and Naples' province have highest number of micro-enterprises while Avellino and Benevento's province are characterized by the presence of bigger firms of sample (Rossi, 2008). A confirmation of average small size is also evident from the firms' net equity. In fact the balance sheets of 2006 show that the average capital is about 430,000 euros, with strong differences into the sample (the range is from a minimum of 10,000 euros to a maximum of about 11,000,000 euros). However the balance sheets of 2007 show an equity growth: actually the average equity is about 540,000 euros. In spite of an increase of 23.33%, the average net equity remains low. This data demonstrate that the Campania wine firms are under-capitalized: this is a problem because it means that large part of investments are covered with an excessive use of debt. Almost all the sample firms don't respect uniformity temporal criterion among finance sources and invest capital. The low capitalization could influence growth processes of firms and the under-capitalized enterprises could be merged from international firms. Few differences exist between different provinces of region. Only in Avellino's province, that is characterized by the presence of larger companies, the average net equity is more than 600,000 euros. However in this area there are the top three Campania wine-maker for turnover but also many microenterprises. Biggest firms have an equity very close to the values of the largest national firms. This data confirm the existence in Campania of some important wineries firms.

The preliminary considerations are that the regional wine system is based, with few exceptions, on micro-enterprises incapable to have a pro-active attitude towards the competitive

environment. This is the principal weakness of regional wine sector. Campania wine firms are family enterprises, strongly linked with territory and its traditions, and this have reflections on competitive strategy and on the decision-making processes.

The survey shows that a large part of regional wine firms pursue differentiation strategies (59%), a minor part (about 25%) pursues niche strategies and some residual choose cost leadership strategy (Figure 4).

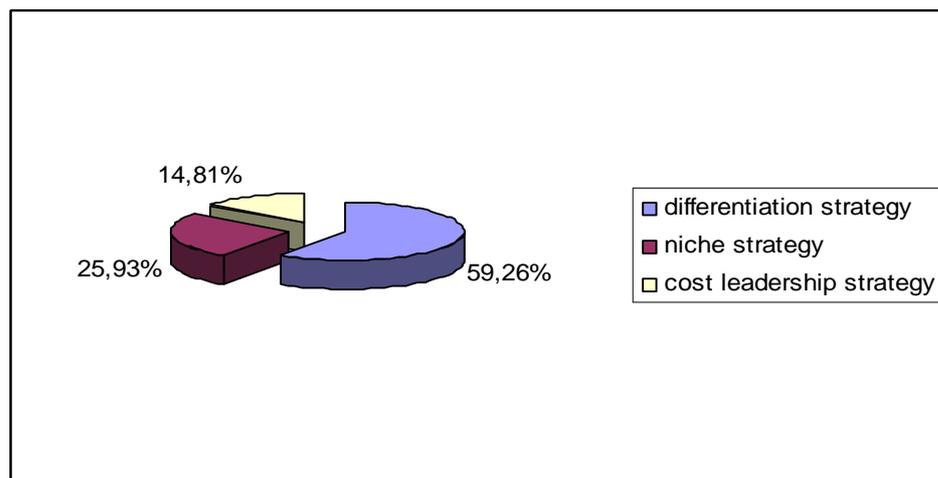


Figure 4 Competitive strategy of Campania wine firms. Source: author calculation

It is not easy to determine if competitive strategies are carried out: sometimes, it seems more a statement of principle, that the expression of a real behavior. Often entrepreneurs are unable to verbalize the key elements of their strategy and there is confusion between size and strategy because the term niche is used as synonym of small. In many cases entrepreneurs do not write strategic planning, only 37% of sample realizes a written plan, index of lack attention to the formulating strategies process. Often this process is realized and knew by a few people. The few firms that formalize their planning often make a one year plan: only 20% of them make multi-annual plans.

The analysis of organizational structure, shows that 74.07% of enterprises have a "simple structure" (Mintzberg, 1983) characterized by a simple architecture, a minimum of organizational units, the absence of staff organism and where the use of strategic planning is minimal. In this organizational structure there are fundamental gaps in commercial function (particularly for commercial actions in foreign markets) and in financial function. In large part of sample (83.33%) the financial decisions are taken by people without appropriate training and involved in administrative activities.

Important considerations are possible with bi-variable analysis. The combination of organization structure, net equity and strategic planning give important results: an organization structure more complex is linked with an evolved legal status; an organization structure complex is linked also with an high net equity and these enterprises present also a strategic

planning more formalized. This means that firms with an high turnover, with an higher number of employees have an higher net equity and have more attention to strategic processes.

To verify the effectiveness of strategic choices and their success is important a corporate performance analysis. Strategic choices have some reflections on the corporate performance indicators (Hitt et al., 1998; Lumpkin and Dess, 1996). The first indicator to consider is the average turnover that in 2007 was above 1.5 million. A comparison with data of 2006 shows a growth of 2%. However this data is influenced by the excessive heterogeneity of sample.

The co-operative firms have the highest turnover (about 3.5 million euros), but this group present a greater uniformity. Company group has an average turnover over 2.5 million. In this group is possible to find the two firms of sample that have the highest turnover (22 million euros and 14.65 million euros). This group is characterized from an high heterogeneity.

We assumed in H1 that International listed wine firms and leading Italian wine makers would exhibit an higher operating revenue growth rate than Campania wine firms. Results from empirical analysis, support H1: Italian companies growth at a faster pace and it's true also for international wine makers. In fact if listed international firms had have a major reduction in turnover, which declined by 10.3% from €8.6bn in 2006 to €7.7bn in 2007, this contraction was entirely attributable to Constellation. Net of this effect, aggregate turnover would have increased by 4.5%.

This is consistent with the findings of Mayer and Alexander (1991). A plausible justification for this result may be found both in the enhanced financing capacity and in the share liquidity advantage (Capasso et al, 2007).

The average ROI in 2007 is 4.13%, with an increase of 2.28% compared with 2006, but ROI value is far from the value of the major Italian wine enterprises (about two percentage points). Between the four groups there aren't strong differences. ROE is stable: from 2.97% in 2006 to 3.14% in 2007. Actually the difference with the major national wine enterprises is about 1%, but the difference with the international enterprises is still high (-4.6%). The value of these indicators has a double significance: from one side indicate a corporate grow up, from another side represents a structural weakness of Campania wine firms. In particular companies present high value of ROI and ROE. Co-operative enterprises present a low value (4.01% ROI and 2.69% ROE), but the individual enterprises are the firms that present lowest profitability (2.67% ROI and 2.15% ROE). The low profitability of these groups have two different reasons. The co-operatives societies aren't integrate up the chain, while the other groups have a commercial operative very limited because their choices are often subject to decisions of national or international distributors, not rarely, in fact, they represents a suppliers of commercial nets.

Empirical analysis on company profitability (H2) show that there are significant differences regard ROI and ROE. International and Italian companies achieve a higher profitability than Campania firms. Also these results are consistent with Mayer and Alexander (1991), but it is in contrast with the result of Rondi et al. (1994). The low value of these indicators, for Campania wine firms, is due to low capital turnover for ROI and high impact of interest expenses for ROE. In fact low operating revenue is eroded by financial costs.

These data show the weakness of strategic choices of a large part of the enterprises of sample. The problem is more relevant for those enterprises that don't use written planning. For those firms there is a problem of effective implementation strategies. The micro-enterprises are incapable to realize a strategic process adequate to changing market and this problem is relevant also for co-operatives firms because they have difficulties to apply the just strategy for new competitive environment. This means that these firms have a tendency to strategic management, but very often are distracted by difficulties of an hypercompetitive sector and so are incapable to distinguish difference between strategic and operative decisions.

The analysis of financial structure shows that all firms of sample use excessive debt, in particular bank debt. In fact the capitalization index is less than 55%, with some small differences within the four groups. In this case sole trader and partnership groups have very similar values, with a very low level of net worth/borrowing ratio (about 51%), followed by co-operatives firm which net worth/borrowing ratio is 56% and companies (61%). All firms present an elevated level of debt with reflection on investment choices.

The data also show that Campania wine makers use more financial leverage compared with other firms. This result indeed support H3. This finding confirms the conclusions of Rondi et al. (1994) and Pagano et al. (1998). Campania wine firms are very small companies and for this reasons they are more exposed to the information asymmetries; therefore the use of high proportions of debt in their financial structure can be explained by the pecking order theory (Myers and Majulf, 1984)

Finally empirical analysis to investment policies show an increase of materials immobilization (+18,5%), between 2006 and 2007, and a low growth of intangible immobilization (+1.93%) for Campania wine firms. However the increase of fixed assets has not interested in the same way all companies of sample: co-operatives firms show a little grow up of immobilization (+2.74%) because do not control the upstream phases of transformation process.

Also Italian wine firms show this tendency. In fact in the wine sector only few international firms have increased budget on intangible assets (research and development, brands, expansion costs), but they are a little percentage of leading companies.

CONCLUSIONS

The survey has shown strategic problems of Campania wine firms. However in Campania there are also firms capable to implement winning strategies, as demonstrated by performance. In fact in decision-making process these entrepreneurs have been able to understand market trends and changes in consumer tastes. For these firms (Table 4), such as for Italian companies, the success isn't linked to companies size but to correct formulation of strategic process.

<i>Company</i>	<i>Competitive strategy</i>	<i>Sales growth rate</i>	<i>ROI</i>	<i>Net worth/borrowings ratio</i>
<i>Feudi di San Gregorio</i>	<i>Differentiation</i>	5,53%	4,60%	78,0%
<i>Mastroberardino</i>	<i>Differentiation</i>	2,89%	7,57%	110,0%
<i>Terredora</i>	<i>Niche</i>	6,88%	6,05%	83,4%
<i>Vinicola del Titerno</i>	<i>Niche</i>	11,25%	4,27%	111,5%

<i>Agricola del Monte</i>	<i>Niche</i>	<i>10,85%</i>	<i>5,25%</i>	<i>71,2%</i>
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Table 4 The top five Campania wine-makers by performance indicators Source: author calculation

In Campania is possible to divide successful enterprises in three categories:

- big firms with formalized structure that pursuing differentiation strategies;
- co-operatives firms that have their strength in partnership;
- micro-enterprises with niche strategy based exclusively on typical or organic products.

These considerations show how different firms with different sizes and different strategies can have success. The key of good performance is strategic planning that is important to know market trends. These best practices, symbol of wine-makers capable to merge tradition and innovation, are the strength of regional wine sector and represent the base to realize the regional wine sector growth process. The Campania's Achilles heel remains firms' structure which isn't measured by company size, but with the ability (or inability) to solve financial and strategic problems.

The first intervention that should be encouraged are merger and acquisition (M&A) processes: in fact in this context would be necessary facilitate M&A processes between regional companies in order to promote growth dimension. These processes could be important to realize cost economies (scale and scope economies) fundamental key in a mature sector. The low enterprises capital and high financial exposure produces a double negative effect:

- the first one is high interest expenses that have a negative impact on performance because erodes the low operating revenue,
- the second one is to make vulnerable many local enterprises who may be acquired from international wine-makers that are interested to acquire small producers of high quality wine.

It is important also a review of investments: investment in tangible assets should be supported with investments in research and development that are important to realize product and process innovations. These investments should ensure a repositioning process on higher (perceived) quality. In fact from many parts is recognized that one problem of Campania wine industries is the lack of marketing policies in support of strategic decisions. The regional wine firms should invest more on development of ideas, creativity, originality and realize products with high emotional content that are recognized and appreciated from new consumers.

Campania wine makers should continue to valorize their autochthones vines because they are appreciated wines with a strong link with territory. For these reasons it's important understand the values that identify the area, understanding the interactions between grapes and regions of origin. The rediscovery of grape-region link could be an instrument for exploitation of unknown resources and represent an opportunity to create interest and economic value.

Also collective interventions are important: wines could be an important element for socio-economy development, but these interventions require the involvement of public institutions. A major cohesion between firms is important, in particular it is necessary a common action to increase cooperation between different actors in the sector. One solution could be creation of relationship networks, formal and informal, that facilitate action to create value in terms of social capital. The growth of the system and the possibility of its development requires ability to learn and to work together to achieve common objectives. The creation and support of social

capital nets, goal of local development, require support of all local institutions (Vespasiano and Martini, 2008). The ultimate goal should be to become the territorial model one of the pillars of regional model, linking the identity of wines to the Campania territory. It would be necessary to have a systematic view, where the system is the territory in which there is confluence of grapes, land and human factors. The international competitiveness can not be won without a deal between productive institutions forces.

The success of this strategy could allow to practice high prices because the consumer appreciate those products that have a strong link between wine and territory. This link is an invaluable source because is the only inimitable value.

Summarizing for regional wine sector development is fundamental:

- to valorize autochthons grapes,
- to change communication underlined regional specificity,
- to realize common action between firms and public institution to create social capital nets that are essential for research and development.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The survey revealed some problems that have underlined managerial lack, low performance and important problem in strategic planning.

However the analysis is an exploratory research and these aren't final results but represent only a base for further analysis. For this reason the empirical results should be interpreted with some limitations:

- the sample of firms is totally random and does not follow the criteria of statistical representatives;
- the number of companies could be expanded and could be involved also the firms of other region of Southern Italy;
- it will be important to realize a many years corporate performance analysis.

Therefore in this phase it's impossible to give an universality character to the results. To achieve this objective will be important to realize small corrections in future phases:

- to expand the number of companies in the sample;
- to respect the percentage importance of different categories of firms.

For these reasons this study has tried to make a minimal innovative contribution and could be represent a starting point for strategic planning firms responsible and for policy makers that are interested to develop the regional wine sector.

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ORGANIZATIONAL DETERMINANTS OF KEY ACCOUNT-RELATED KNOWLEDGE DISSEMINATION

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Purpose – This study aims at identifying the organizational antecedents of intra-organizational customer knowledge dissemination in the context of key account management.

Design/methodology/approach – The data was collected from large industrial companies in Finland by means of a structured survey. Linear hierarchical regression analysis was used to test the hypotheses.

Findings – The findings of the study show that esprit de corps among employees and the formalization of key account management facilitate customer knowledge dissemination in industrial key account organizations. Moreover, the intra-organizational dissemination of customer knowledge is positively related to the supplier's KAM performance.

Research limitations/ implications – The study contributes to the research on key account management in providing quantitative empirical evidence about the antecedents and consequences of the intra-organizational dissemination of key account-related knowledge.

Originality/value – In building on previous research on customer knowledge management, market orientation and key account management the study identifies customer-specific knowledge dissemination as an intra-organizational determinant of the successful management of industrial key account relationships.

Keywords: Customer knowledge, knowledge dissemination, key account management

Paper type Research paper

INTRODUCTION

Customer knowledge has been recognized as a fundamental organizational resource by several authors (e.g., Campbell, 2003; Day, 2000; García-Murillo and Annabi, 2002; Gebert et al., 2003; Gibbert et al., 2002). In the competitive marketplace of today it is imperative that firms develop organization-wide customer knowledge, and use it in a proactive manner in order to foster and enhance long-term customer relationships (Campbell, 2003; Jayachandran et al., 2005; Sisodia and Wolfe, 2000).

Although several researchers have acknowledged the significance of customer knowledge management, there is still a lack of empirical research into the supplier's intra-organizational processes in this regard (e.g., Campbell, 2003). These processes would appear to be of crucial importance in the management of large, strategically important industrial customers, also known as key accounts (e.g., Abratt and Kelly, 2002; Workman et al., 2003). The management of these relationships requires efficient knowledge processes because communication occurs at many levels across different functions both inside the supplier firm and between the supplier and the customer (Bennett and Gabriel, 1999; Day, 1994). Moreover, compared to the management of non-key account customers, the knowledge flows are often more substantial due

to the strategically important nature of key accounts (McDonald et al., 2003; Nätti, 2005). However, a large proportion of customer-related knowledge may be tacit in nature, and thus difficult to share and communicate (Day, 2000). This creates pressures on supplier firms because if customer knowledge is not freely disseminated in the organization, the supplier's actions may seem fragmented from the perspective of the customer (Nätti et al., 2006). Moreover, unless effective knowledge sharing mechanisms are in place, firms may not be able to fully realize the true value of their knowledge assets (Gupta et al., 2000). They should therefore have the capacity for organization-wide dissemination of customer knowledge in order to ensure that the right people have access to the appropriate knowledge at the right time. This, in turn, is likely to improve the quality of customer-specific decision-making and thus create added value for the customer.

The aim of this paper is two-fold. Firstly, it examines how managerial practices and structural factors such as top management involvement, sales team use, esprit de corps among employees, and the formalization of key account management (KAM) affect the dissemination of customer knowledge. Although the importance of these factors has been acknowledged in previous research on key account management (e.g., Workman et al., 2003), their link to intra-organizational processes of customer knowledge management still requires empirical research. Secondly, the performance consequences of customer knowledge dissemination are considered from the perspective of the supplier. The study thereby responds to a call for more research on the intra-organizational determinants of successful key account management (Workman et al., 2003).

The rest of the paper is organized as follows. The specific features of customer knowledge management and dissemination are discussed next, and then the hypotheses are presented and justified. The focus then shifts to the research design and data collection. The results of the hierarchical regression analysis are presented and the paper ends with a discussion of the findings, the managerial implications and the limitations.

CUSTOMER KNOWLEDGE MANAGEMENT AND DISSEMINATION

In recent years several researchers (e.g., Campbell, 2003; García-Murillo and Annabi, 2002; Gebert et al., 2003; Gibbert et al., 2002; Salomann et al., 2005) have been fostering a field of study referred to as "customer knowledge management", which represents a confluence between two streams of research - the management of customer relationships and knowledge management. The driving force behind the emergence of this line of research was the recognition that the management and cultivation of customer relationships enable firms to leverage their customer-specific knowledge assets (Campbell, 2003; Jayachandran et al., 2005; Salomann et al., 2005). Customer knowledge may help in the creation of competitive advantage because its development enhances new product performance (Joshi and Sharma, 2004). It also facilitates the cultivation of customer relationships, which are increasingly recognized as competitive assets that are equal in value to the other financial assets of the company (Galbreth, 2002).

Drawing on theories of knowledge management, the literature on the management of customer knowledge emphasizes that companies should generate information not only *about* their customers but also *from* them (e.g., García-Murillo and Annabi, 2002; Gibbert et al., 2002; Rowley, 2002). Thus, in addition to recognizing customers as a source of information, as in

traditional knowledge management, there is a deeper and explicit focus on the generation of customer knowledge, and particularly in interaction with the customer. The emphasis is not only on generating explicit knowledge about customers (e.g., customer-specific data on sales records and past purchases, and written customer-visit reports) that is objective and rational, and can be communicated and shared easily (Gupta et al., 2000), but also on the tacit customer relationship-specific knowledge that builds on prior experience with the customer and is difficult for competitors to imitate (Wernerfelt, 1984). According to Gibbert et al. (2002), the ability to manage customer knowledge is likely to result in the identification of new market opportunities and new ways of doing things, and thus to benefit the company, its shareholders and the customer.

To date, research on customer knowledge management has mainly focused on the inter-organizational flow of knowledge between the buyer and the seller (e.g., García-Murillo and Annabi, 2002), and it is still unclear what actually constitutes the organization-wide 'management of customer knowledge' from the perspective of the supplier. In accordance with Darroch's (2003) definition of knowledge management, the management of customer knowledge is understood in this study in terms of its acquisition, dissemination, and utilization. This approach has conceptual similarities to the market orientation construct, which Kohli and Jaworski (1990) define as behavior related to the generation and dissemination of, and responsiveness to market intelligence. The difference, however, is that in this study the object of the knowledge processing is a specific key account customer. Thus the contents of the knowledge generated in the management of customer knowledge are also different from market-oriented knowledge in which the processing behaviors are focused on generating knowledge about aggregated markets (see e.g., Campbell, 2003; Jayachandran et al., 2005; Helfert et al., 2002).

This research builds on different theoretical backgrounds, and therefore there is great variety in the use of terms describing the intra-organizational flow of knowledge. For example, among marketing academics the most often used term has been dissemination (e.g. Darroch, 2003; Jaworski and Kohli, 1993; Kohli and Jaworski, 1990; Li and Calantone, 1998), but also other terms such as transmission (Moorman, 1995), sharing (Slater and Narver, 2000) and transfer (Nätti, 2005) have been used. In the realm of knowledge management the terms most frequently applied include sharing (e.g., Gupta et al., 2000) and transfer (Goh, 2002). In general these terms are used rather interchangeably, although Liyanage et al. (2009) make a distinction between sharing and transfer, suggesting that sharing refers to two-way knowledge exchange between individuals whereas transfer refers to a higher-level process that includes knowledge transfer in groups, departments or divisions. The term dissemination is used in this study to refer to the intra-organizational flow of customer knowledge. It involves the extent of key account-related knowledge sharing and transfer within a given key account organization. Dissemination occurs both formally (e.g., via intranets or other knowledge-sharing platforms) and informally (e.g., via hall-way discussions and over lunch). In general it refers to the extent to which those involved in the management of a single key account relationship share and transfer the related knowledge organization-wide. It also has a direction in that it may be vertical or horizontal (Kohli and Jaworski, 1990). Dissemination is an important phase in the processing of customer knowledge because it provides the basis for managing customer relationships as complete entities organization-wide.

THE CONCEPTUAL MODEL AND HYPOTHESES

Lin (2007) identified individual (e.g., motivation, values, beliefs), organizational (e.g., top management support, structure) and technology (ICT to support knowledge processing) factors affecting the intra-organizational sharing and dissemination of knowledge. The focus in this study is on organizational and individual factors. The study conducted by Workman et al. (2003) is used as a basis for examining how top management involvement, esprit de corps, the use of teams, and the formalization of KAM affect the dissemination of customer knowledge. The hypotheses are set out and justified, and the conceptual model presented, in the following paragraphs.

Top management involvement

Top management has a special role to play in shaping the values and behavioral activities in organizations (Deshpande et al., 1993; Kohli and Jaworski, 1990). The importance of top management involvement has been discussed in previous research on key account management (e.g., McDonald et al., 2003; Napolitano, 1997; Workman et al., 2003). Napolitano (1997, 5), for instance, argued that *“top management involvement is the most important indicator of success”* in KAM. It is also emphasized in the literature on knowledge management: Gupta et al. (2000), for example, state that top management support is crucial in the development of a true knowledge-sharing and learning-oriented culture. If top managers show a willingness to share knowledge they might expect others in the organization to follow their lead (Goh, 2002). Jaworski and Kohli (1993) found in their study on market orientation that top management involvement was positively related to the generation and dissemination of, and responsiveness to market knowledge. It is thus assumed in this study that top management involvement has an impact on the dissemination of customer knowledge, and the following hypothesis is posited:

H1: Top management involvement is positively related to the dissemination of customer knowledge.

Esprit de corps

Esprit de corps reflects the degree to which employees are committed to common goals and to each other (Workman et al., 2003). These values are deeply rooted in the organizational culture, which according to previous studies may affect knowledge sharing in organizations. According to Nahapiet and Ghoshal (1998) and Nätti et al. (2006), this kind of knowledge-sharing tendency is likely to occur in organizations with co-operative and collaborative cultures and collaborative methods of working. According to Workman et al. (2003), a lack of esprit de corps among employees may inhibit them from sharing customer-related knowledge with each other. Thus the following hypothesis is proposed:

H2: Esprit de corps is positively related to the dissemination of customer knowledge.

The use of teams

Several authors refer to the need for cross-functional coordination in the management of diversified key account customers (e.g. Workman et al., 2003). The most frequently used intra-organizational coordination mechanism in the KAM context is a specific sales team with the

following functions: coordinating the activities of team members across the organization in line with its overall goals, maintaining knowledge about the customer and the customer's market and industry, and coordinating the day-to-day selling activities (Deeter-Schmeltz and Ramsey, 1995).

Teamwork in general is often seen in today's changing business environment as a critical success factor and as a tool for increasing horizontal knowledge flows (Goh, 2002). Teams allow access to "pooled intelligence", and they are needed especially in converting tacit knowledge into the overall pool of organizational knowledge (Nonaka and Takeuchi, 1995). They constitute a breeding-ground for new ideas and enhanced knowledge as the members have the opportunity to share dispersed knowledge, argue, challenge, and create new knowledge to be further utilized in terms of new products, processes, and services (Sapsed et al., 2002). Although research on the relationship between team use and customer knowledge processing is mainly qualitative in nature, a positive relationship has been proposed in several studies. For example, it has been argued that the use of sales teams enables the more efficient integration of customer knowledge (Katzenbach and Smith, 2005) and improves the degree of knowledge sharing between team members (Geiger and Turley, 2005; Nätti et al., 2006). Teams thus have a 'linking-pin' role in providing a forum for the cross-functional communication of customer relationship-specific matters. Hence the following hypothesis is posited:

H3: The use of sales teams is positively related to the dissemination of customer knowledge.

The formalization of KAM

Formalization reflects the degree to which formal rules, procedures, and standard policies govern the decision-making, roles, and responsibilities in organizations (e.g., Argouslidis and Baltas, 2007). Although it has been found to have a negative impact on the ability to adapt to external changes (Jaworski and Kohli, 1993), and to decrease flexibility in information use (Deshpande and Zaltman, 1984), a positive influence on knowledge-processing behaviors has also been reported. For example, Green et al. (2005) found that it had a positive influence on the generation and dissemination of and responsiveness to market knowledge, whereas Low and Mohr (2001) noted that it enhanced the use of market knowledge. According to Jaworski and Kohli (1993, 63), "*if properly designed, rules may facilitate rather than hinder market orientation*". Formalization could be regarded as an impersonal coordinating mechanism (Homburg et al., 2002), which by its mere existence communicates the special status of key accounts to employees. It is assumed here that it is likely to encourage the firm to disseminate customer-specific knowledge more actively, hence the following hypothesis:

H4: The formalization of KAM is positively related to the dissemination of customer knowledge.

Supplier's KAM performance

The organization-wide dissemination of customer knowledge facilitates the management of the key account relationship as a complete entity. Dissemination enables the shared interpretation of knowledge among employees (Slater and Narver, 1995), and thus is likely to result in customer-specific innovative products and services when people across functional

borders are exposed to the new knowledge. Moreover, the free dissemination of customer knowledge supports customer-specific financial reporting, and the development of customer-specific profiles and strategies organization-wide. Arnold, Birkinshaw and Toulan (2000) found in their study on global-account management that intra-organizational communication inside the supplier firm was even more important in terms of account performance than external communication between the supplier and the account. The crucial role of the intra-organizational dissemination of knowledge is also widely referred to in the market-orientation stream of research, and a positive relationship between market-knowledge dissemination and organizational performance has been reported in several studies (e.g., Baker and Sinkula, 1999; Jaworski and Kohli, 1993; Kara et al., 2005). This leads to the following hypothesis:

H5: Customer-knowledge dissemination is positively related to supplier's KAM performance.

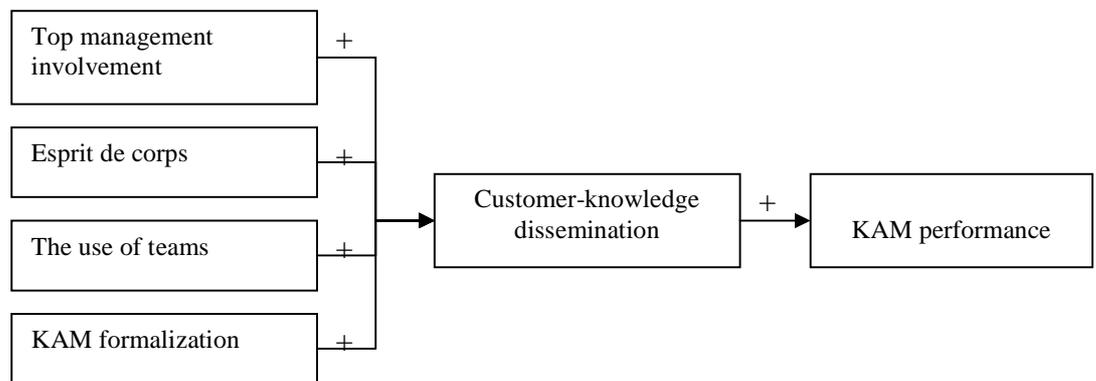


Figure 1. The conceptual model. Research design and data collection

The data was collected during the spring of 2007. A structured print questionnaire was sent to a sample of Finnish industrial firms with over 200 employees, drawn from the Amadeus database. The key-informant technique was used in collecting the data. Higher-level managers were first contacted by telephone in order to ensure the eligibility of the firm to take part in the study, and to elicit their cooperation. They were then asked to recommend between one and five knowledgeable respondents who were responsible for managing different key account relationships. The final respondents were mainly key account managers or persons with corresponding positions. When completing the questionnaire they were asked to refer to a relationship with the most significant key account customer in terms of annual sales. Of the 361 firms identified from the database, 171 were found eligible to take part in the study, and 13 refused to do so. A total of 395 questionnaires (with a pre-paid return envelope and a cover letter) were then mailed to the 158 firms that had agreed to participate. A total of 169 responses were received from 97 firms, thus yielding a satisfactory effective response rate of 56.7 per cent (97/171) on the company level, and 42.8 per cent (169/395) in terms of the total number of questionnaires sent and received.

The suggestions put forward by Armstrong and Overton (1977) were followed in order to check for possible non-response bias. The early and late respondents were compared on a

number of variables, and no significant differences between the groups were found. Thus, non-response bias was not considered a problem. As single informants were used in the data collection, Harman's single-factor test (Podsakoff and Organ, 1986) was performed to check for possible common-method bias. No single factor emerged, and the first factor accounted for only 21 per cent of the variance. Thus, common-method bias was not expected to have an effect on the results of the study either.

MEASURES

Principal component analysis with varimax rotation was used to create composite measures for each construct. The dissemination of customer knowledge was measured on a seven-point Likert-type scale ranging from "strongly disagree" to "strongly agree". Five items were used, adapted from Kohli et al. (1993), Jayachandran et al. (2005), and Cadogan et al. (1999), and modified to fit the context of the present study. They assessed, for example, the degree to which people involved in the management of the key account relationship shared key account-related matters, and the extent to which the key account-related knowledge was disseminated to those who needed it. The Cronbach's alpha for the aggregated measure was 0.73, which according to Nunnally (1978) indicates acceptable reliability. Top management involvement was measured on a seven-point Likert-type scale, using four items adapted from Workman et al. (2003) and Jayachandran et al. (2005). These items assessed the degree to which top management was involved in the management of key account relationships and also the degree to which they supported the key account managers in their work. The Cronbach's alpha for the scale was 0.74. Esprit de corps was assessed on four items taken from Workman et al. (2003), which measured the extent to which the people involved in the management of the key account relationship 'pulled together', in other words were committed to the common goals and to each other. The reliability of the scale was 0.74. A dummy yes/no variable measured the use of teams. Finally, KAM formalization was measured on four items taken from Workman et al. (2003), which assessed the existence of formal rules and procedures in the organization covering communication and the identification of key accounts, for example. The reliability of the scale was strong, with a Cronbach's alpha of 0.80. In order to assess KAM performance the respondents were asked to rate on a 10-point Likert scale their overall performance in the management of the key account relationship during the previous three years.

Control variables

The dynamism of the key account, measured on a seven-point Likert scale comprising items adapted from Jaworski and Kohli (1993) and Jantunen (2005), was controlled for in the analyses of the relationships between the proposed antecedent factors and customer-knowledge dissemination. Six items assessed the rapidness of technological change in the key account's industry ($\alpha=0.82$), four items measured the unpredictability of the key account's preferences ($\alpha=0.71$), and four items measured the competitive intensity in its business ($\alpha=0.71$). The effect of the geographical scope of the key account was also controlled for by means of a dummy variable with a value of zero for a national key account and one for an international account. Control measures were also used in the analyses of the relationship between customer knowledge dissemination and KAM performance. Firstly, the status of the key account's business (how its

own business had developed during the previous three years) was measured on four items assessing for example development in terms of price level and profitability ($\alpha = 0.81$). Secondly, the geographical scope of the key account was controlled in a similar manner as in the first regression analysis.

RESULTS

The means, standard deviations and correlations among the variables used in the study are reported in Table 1. The correlation matrix reveals that 67 per cent of the respondents filled in the questionnaire from the perspective of an international key account relationship, and approximately 50 per cent of the supplier organizations had established a specific team for managing the relationship. It is also evident that the competitive intensity in the key account's field of business in general was held in higher regard than the technological turbulence. Moreover, competitive intensity in the key account's field of business is positively associated with unpredictability in terms of the key account's preferences. Finally, there is a strong correlation between the development of the key account's business and the supplier's KAM performance.

	<i>Mean (SD)</i>	1	2	3	4	5	6	7	8	9	10	11
<i>Customer knowledge dissemination</i>	5.02 (.99)	1.000										
<i>ka_type</i>	.67 (.47)	-.017	1.000									
<i>ka_techturb</i>	3.11 (1.12)	.031	.127	1.000								
<i>ka_pref</i>	3.58 (1.03)	-.034	.052	.679***	1.000							
<i>ka_comp</i>	5.16 (1.01)	.170*	.120	.494***	.465***	1.000						
<i>Use of teams</i>	0.49 (.50)	.143	.060	.139	.159*	.142	1.000					
<i>Top management involvement</i>	4.64 (1.23)	.079	.023	.115	.041	.052	.066	1.000				
<i>Esprit de corps</i>	4.89 (.96)	.355***	-.033	.098	-.009	.110	.091	.320***	1.000			
<i>Formalization</i>	4.52 (1.36)	.293***	.049	.119	.009	.174*	.280***	.228**	.253**	1.000		
<i>Ka_business</i>	4.94 (0.93)	.082	-.027	-.072	-.047	-.066	-.010	.146	.046	.024	1.000	
<i>KAM Performance</i>	7.60 (1,28)	.204**	.133	-.111	-.047	.037	.163*	.186*	.226**	.120	.302***	1.000

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ ($n=167$)

Table 1. The means, standard deviations and correlations

Linear hierarchical regression analysis was used to test the hypotheses. The control variables were entered into the regression model in the first step, and the independent variables, namely top management involvement, the use of teams, esprit de corps, and formalization, in the second step. The possible risk of multicollinearity was assessed by checking the values of the variable inflation factor (VIF) scores. They were below the cut-off value of 10 suggested by Hair et al. (1998), the highest being 2.08 in the first regression analysis and 1.007 in the second. Thus, multicollinearity was not considered a problem. Graphical examination of the residuals, skewness and kurtosis statistics revealed no violations of the basic assumptions of regression analysis. Table 2 presents the results of the first hierarchical analysis.

<i>Dependent variable: Customer knowledge dissemination</i>		
<i>Variable</i>	<i>Step 1 Standardized Coefficients</i>	<i>Step 2 Standardized Coefficients</i>
<i>nat_int</i>	-.040	-.028
<i>ka_techtrub</i>	.030	-.039
<i>ka_pref</i>	-.162	-.087
<i>ka_comp</i>	.236*	.161
<i>Use of teams</i>		.064
<i>Top management involvement</i>		-.066
<i>Esprit de corps</i>		.306***
<i>KAM formalization</i>		.191*
<i>R2</i>	.047	.198***
<i>Adjusted R2</i>	.024	.157
<i>Change in R2</i>		.151***
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ ($n=167$)		

Table 2. Regression results (customer knowledge dissemination)

The results of the first regression indicate that none of the control variables had a significant effect on the dissemination of customer knowledge. As far as the second step is concerned, firstly, top management involvement was not significantly related, thus hypothesis 1 was not supported. On the other hand, there was a strong positive relationship on the one-per-cent level between KAM team esprit de corps and customer-knowledge dissemination, thus supporting H2. There was no significant positive relationship between the use of teams and the dissemination of customer knowledge, thus failing to support hypothesis 3, but there was a positive relationship with KAM formalization on the five-per-cent level, thus supporting H4.

Another hierarchical regression was then run in order to assess the effect of customer knowledge dissemination on KAM performance (Table 3). The results indicate that of the proposed control variables the status of the key account's business was positively related, suggesting that suppliers perform better when the status of the key account's business is higher. The dissemination of customer knowledge was also found to have a significant and positive effect on the supplier's KAM performance, thus supporting H5.

<i>Dependent variable: KAM performance</i>		
<i>Variable</i>	<i>Model 1 Standardized Coefficients</i>	<i>Model 2 Standardized Coefficients</i>
<i>nat_int</i>	0.134	0.137
<i>ka_business</i>	0.302***	0.287***
<i>Customer knowledge dissemination</i>		0.183*
<i>R2</i>	0.109***	0.142***

<i>Adjusted R</i>	0.098	0.126
<i>Change in R2</i>		0.033*
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ ($n=167$)		

Table 3. Regression results (KAM performance)

DISCUSSION

The findings reported in this paper contribute to the existing research on key account management in providing empirical evidence of the antecedents and consequences of intra-organizational customer knowledge dissemination in this context. Although the importance of the organization-wide dissemination of customer-specific knowledge has been addressed by several authors, so far academic research from this perspective has remained sparse. In that sense, this study is explorative in nature and calls for more research on various issues.

The first hypothesis posited that top management involvement would be positively related to the dissemination of customer knowledge. Contrary to expectations, there was no support for H1. However, it is clear from the correlation matrix (Table 1) that top-management involvement has a significant and positive correlation with esprit de corps and KAM formalization, both of which according to these findings are positively related to customer knowledge dissemination (H2 and H4). It appears, therefore, that top management involvement may have an indirect effect on dissemination by shaping the organizational values, increasing the level of esprit de corps among the employees, and establishing rules and norms covering the management of key account relationships.

The third hypothesis, suggesting that the use of teams would be positively related to the dissemination of customer knowledge, was not supported either, which implies that the team itself is not a guarantee of efficient knowledge flow in key account organizations. It rather seems that, as previous research (e.g., Goh, 2002; Lee and Choi, 2003) suggests, what matters more is the esprit de corps, and thus the willingness of employees to share knowledge.

The results also suggest that formalization has a positive impact on the dissemination of customer knowledge. Although it has been reported in previous studies that formalization may decrease flexibility (e.g., Deshpande and Zaltman, 1984) and make organizations too stiff in their attempts to adapt to external changes, it appears from this study that in the KAM context a certain degree of formalization is necessary, at least in terms of customer knowledge dissemination. It communicates the importance of key accounts and therefore enables employees to distinguish key account-specific knowledge from the overall knowledge flow in firms. It also helps in assigning roles and responsibilities among employees.

Finally, it was confirmed in the study that the dissemination of customer knowledge has a positive influence on the KAM performance of the supplier. This finding implies that when customer-related knowledge flows freely within the supplier organization, the relationship can be managed in a coordinated manner and relationship-specific decisions can be made based on accurate and updated information. Contradictory service offerings that would not look good in the eyes of the customer can therefore be avoided.

Although the study makes a contribution to the research on key account management by bringing customer knowledge dissemination into the discussion on its intra-organizational

determinants (Workman et al., 2003), it also has some limitations that should be addressed in future research. Firstly, although it was recognized that knowledge is either codified or explicit, its nature was not taken into consideration. Thus, future studies should examine in more detail the effect of the nature of knowledge on the dissemination of customer knowledge and its relationship with KAM performance. Moreover, the use of the key-informant technique in the study means that the possibility of common-method bias cannot be ruled out. Moreover, as the respondents were mainly key account managers, one must recognize that managerial perceptions of knowledge dissemination may differ from the perceptions of team members.

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INTERNATIONAL STRATEGIES IN ITALIAN ENTERPRISES: THE NEW ENERGY MARKET SCENARIO

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Purpose - The aim of the research is to describe widely the European and the Italian energy market scenarios of the last decade, analyzing specific topics (such as the European energy dependence, the liberalization of the electricity and gas sectors and the obstacles to the competition in the emerging markets) and the strategic approach of Italian enterprises.

Design/methodology/approach - The research was developed through a five month study of the Energy sector, using sources of information as Eurostat, AEEG and GME data. The present research is a qualitative and quantitative description of the scenario, reporting numerical data and trends of the sectors and describing the possible evolution of the gas and electricity markets in the near future.

Findings - The main finding of the research is that there will not be a real competitive energy market until some obstacles are removed: the trend toward market concentration and the residual market power of incumbents (such as ENI or ENEL in Italian markets) are just few of these obstacles. Moreover the European energy market players must aim at diversifying energy sources and suppliers. Depending on countries like those of the FSU or Middle East is the main reason why prices of energy are still high in European countries.

Originality/value - The research's value is that it aims at being an easy but exhaustive description of the dynamics of the new energy markets and of the strategic behaviour of Italian enterprises.

Keywords: Energy, Liberalization, Electricity and Gas Markets, Italian Energy Market.

Article Type: Research paper

THE ENERGY MARKETS: TRENDS AND OBSTACLES TO THE DEVELOPMENT IN EUROPE AND ITALY

During the last 15 years the energy sector underwent a deep mutation. This market slowly moved from a monopolistic toward a liberalized system, though this passage didn't had the expected success because of a series of obstacles.

Infrastructures problems and trend toward market concentration make the transition to competitive markets extremely hard and slow, moreover energy market's operators are facing many difficulties due to oil's price oscillation and geopolitical instability in supply countries.

We will try to show the dynamics that make this transition to the new energy markets so complex in an approachable way, deeply analyzing all the events and the peculiarities of the contemporary gas and electricity sectors.

European Scenario

Worldwide energy demand is growing with a very fast rate mostly because of the Asian and developing countries' needs.

In recent years the exploitation of almost every energy source (renewable, natural gas, coal) has grown rapidly, except for nuclear energy. Natural gas seems to be the main energy source for electricity generation, while oil remains the major one in the transport sector. Anyway oil's exploitation seems to be slowing down, while natural gas and coal's utilization is growing fast.

On the supply side, combustibles stocks seems to be able to satisfy worldwide demand for the next few decades although the exploitation of existing ones is hardly hindered by geopolitical obstacles: being almost 56% of oil stocks located in Middle East and 40% of gas ones in FSU and ME, it is clear that energy sources supply is still concentrated in a few areas around the world.

So the energy consuming countries, including the European ones, have to face a difficult situation also due to the elusive behavior of suppliers: OPEC is reluctant to invest in new oil production capacity as exporters find it easier to keep higher prices thanks to growing demand. Empowering production capacity would lead to a rise in the supply of oil and this would also force Middle East suppliers to reduce prices.

AEEG (Italian Gas and Electricity Authority) believes that, through proper investments, Iraq could raise its production from 2,3 millions oil drums a day to more than 5 millions in the next five years and this could be a way to gain enough wealth to restore the whole country's uneasy conditions.

It is also important to notice that the OCSE countries' oil stocks are diminishing day by day and this strengthens the OPEC supplier position. Moreover Brent²²² is produced only in a few areas of the planet and it is very rare. Otherwise heavy oils are easier to be found and they are overproduced but they are not used for gasoline production.

It also seems quite clear that every energy source stock has grown very slowly in the last few years, while on the contrary, the consumption of the exporters has grown very fast (this trend has been observed in countries like Iran and Russia).

For what concerns renewable energy sources, only the 18,6% of total electricity generation has been produced through the use of these sources, but in 2006 hydroelectric generation still counts for 90% of total RES generation.

The three main European trends to be considered to deeply understand the energy sector situation are Dependency, Production and Consumption.

Eurostat Data (2005-2007) show that European consumption remained almost constant while production diminished: the result of these two trends is that dependency has grown.

For example 2006 data show that EU25 energy production dropped by 4,2% implicitly causing a 4,5% rise in import energy. This brought European energy dependency from 54 to 56% (EU 25). In particular, in the period 2004-2006, oil net imports raised by 2,9% while gas net imports raised by 9,2%.

2008 data uphold these findings as EU27 data consumption remained stable while production slowed down augmenting European dependency from 53 to 54% (EU27).

²²² Brent is a light crude oil. Being good for making gasoline and middle distillates, it is the most demanded.

In other words the general trend shows that in between 1997 and 2006 European energy production was reduced by 9%, consumption raised by 7% while dependency raised by 29%.

Almost every country raised its net imports like Italy and UK. Only Denmark could reduce its own with a 22% net imports reduction.

It is easy to understand that Europe, as the rest of the world, is almost completely dependent from those export areas like FSU and Middle East for what concerns oil and gas exports and to completely understand the energy market scenario it is important to consider that oil and gas prices deeply affect electricity production and gasoline prices.

For example oil's price oscillation bias electricity prices on the European markets (like Italian IPEX or French Powernext). The impact of these variations on the electricity markets usually happens after a short period of time and the size of this impact also depends on the amount of oil (or gas²²³) used for electricity generation (for example the Italian market, which depends almost completely on oil and gas, suffers most these oscillations).

So as oil and gas prices recently suffered numerous turbulent variations, caused by speculative and opportunistic behavior of suppliers, the energy prices consequently underwent strong rises and downturns.

This is one of the main reasons why Europe is aiming at diversifying its own energy sources and its own suppliers. Excessive dependency on supply countries like Russia and Middle East's ones brings Europe to deeply suffer combustible prices oscillations caused by strong players in the markets.

One of these players is the Russian colossus Gazprom. First of all this company recently suffered strong political influences that caused unbalances throughout all Europe that led to the "gas war" between Russia and Ucraina in 2006. Moreover Gazprom is expanding its control upstream and downstream over other minor companies. The aim of the player is to strengthen its export capacity over Europe in the next future: through M&As operations Gazprom is trying to acquire control over Asian stocks as internal ones are going to exhaust oneself. This way the Russian player is going to rule the gas market for a long time.

²²³ Gas prices are index linked to oil prices.

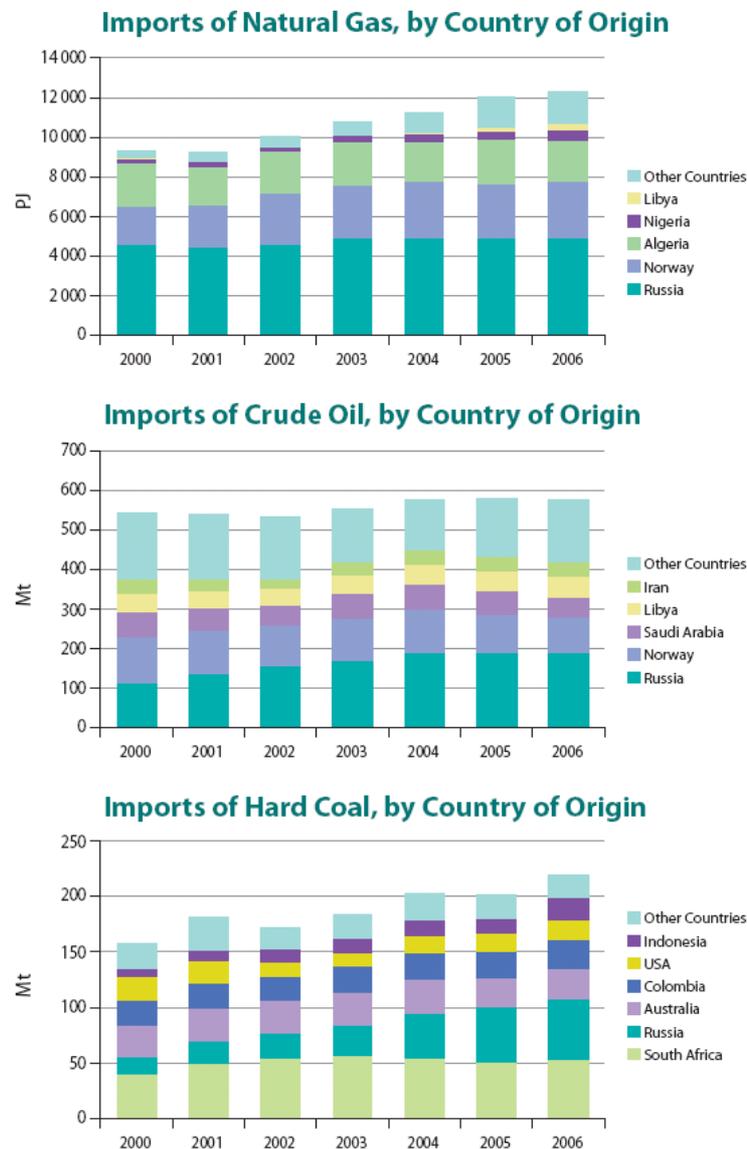


Figure 8 Source: Eurostat (2008)

One way to avoid this situation could be the development of LNG (liquefied natural gas) Terminals, but this technology needs huge investments in special infrastructures (Italy is investing and developing this kind of technology thanks to the efforts of ENI). The creation of a LNG market with all the necessary transportation, storage and terminals infrastructures could lead to a deep reduction of concentration in the field of gas import.

In light of these considerations Europe is aiming at two main purposes by 2020: secured procurements and climate sustainability. To face these two hinders EU is trying to strengthen

market liberalization, sources diversification, RES exploitation and Energy Efficiency programs development although many studies state that Energy efficiency and renewable energy sources will not be the real answer to procurements reliability until at least a 50 years time.

The European Commission believes that in the mid term the only solution will be nuclear energy. First of all this technology is the cheapest to consent CO2 reduction nowadays and at the same time it could guarantee procurements reliability for a long time. The only obstacle to the development of this technology is the necessity to invest in plants security.

Market Liberalization

Liberalization throughout the European national markets began almost 10 years ago and it has reached a fairly good result but the path toward a completely competitive market seems not over yet.

At the beginning of the 80's many European countries experienced a progressive opening toward liberalization of their markets. One of these was the energetic one. This kind of market is characterized by the presence of a transport net which was usually managed by the monopoly that also offered the electricity generation and production so that the same operator could offer the distribution service too²²⁴.

As the realization of a second transport net could cost huge investments to any potential new entrant, the electricity generation and distribution services remained State owned for a long time.

Many operators anyway amortized the costs of the transport net during the 80's and the 90's and let new entrants join the net exploitation. After a few years, with the liberalization of the market the transport net management has been transferred to a new independent company (in Italy this new company is called Terna). Although many countries started the liberalization process very early in the 80's (as it happened during Thatcher's mandate in England), the real European process started in the mid 90's with directive 96/92/EC.

This directive let new entrants in the market access the transport net. The main aims of EU to be reached by the tool of liberalization were the security of procurements and competitive prices. Moreover every country had to institute an authority whose main task is to lookout the market operators and their behavior.

In 2001 new measures have been introduced to reinforce the liberalization process and in 2003 the European Council and the European Parliament approved two new directives (2003/54 and 2003/55) to complete the realization of a European market and a Regulation (1228/2003) to enforce crossborder energy exchanges.

The directives anyway were also meant to safeguard obligations as the "universal service" and procurements security, consumerism, market transparency, information diffusion and competition. The antitrust authorities tried also to avoid abusive behavior by the incumbent (as ENEL in Italy) which often maintain a dominating role in the market.

²²⁴ In Italy this "double service" was offered by ENEL.

The last and maybe the most important passage in the path toward market liberalization is the introduction of complete liberalization which happened in many countries the first of July 2007.

Looking forward to 2020, liberalization safeguard is one of the main aim of EU, together with climate sustainability. To assure energy service quality to citizens and companies in fact are just two of the achievements to be reached in a perfectly reinforced and integrated market.

Anyway many scholars think that the liberalization process isn't to be considered over yet: the market opening in EU hasn't been an easy task for many reasons. First of all every European country has had an heterogeneous energy policy due to the consequences of the oil crisis of the 70's. This led to a very low crossborder competition as incumbents mainly acted in their own country.

Moreover the energy market structure is highly complex. The electric market, for example, is structured in this way: generation, transmission, distribution, selling and not only it is easy to find fragmentations inside it but it is also very usual to find vertical integrations among players²²⁵.

Another feature of the market liberalization is that incumbent players often maintained high market shares thanks to perceived switching costs: in the British market for example, customers rarely changed supplier because they did not have access to information about the new services offered by new entrants. This is one of the reason why there are only six major players in the British market and British Gas is still the market leader. Something very similar happened in France, Italy and many other European countries too.

All these features slowed down the liberalization process in recent years.

Eurostat data also confirm a concentration trend in the electric sector: in Italy only five companies produce 70% of the whole country's electric generation. In Germany four companies produce over 75% of the whole production.

BCG studies sustain that the energy market future is going to be dominated by a strong concentration although it is more than a decade since the liberalization process has been started. Among the drivers of this consolidation process (and so, on the opposite, among the obstacles to new entrants) we can find in first place the high investments requested which are necessary to join the market.

REF studies on concentration in the energy markets show the importance of mergers and acquisitions too: in between 2003 and 2006 M&As operations trebled compared to the 1998-2002 period, with over 100 operations in between 2003 and 2004. Back to 2006 a deep rise in the crossborder operations has been observed.

In the 2003-2006 period the M&As operations in the electric market raised from 55 to 64, while in the gas market they raised from 17 to 42 (this was mainly caused by the aggressive behavior of the Russian gas operator Gazprom).

²²⁵ *This also happens in the Gas market.*

Moreover in the electric market the majority of M&As operations involve players in the generation phase, while in the gas sector the players involved mainly act in the distribution and selling phases but many M&As were also developed in the procurement stage.

Scholars believe that these trends show a particular evolution of the entire market toward an European oligopoly: big players as Russian Gazprom, Italian ENI, French GDF, exploited the market opening to expand their operations crossborder. This is going to lead to a new arrangement of the European market in which a few big players will be the competing leaders while all the other companies will only have a residual market share. So major companies will be able to benefit from their incumbent position in their own market, stronger contractual power in the procurement phase and solid economies of scale thanks to the presence in other countries.

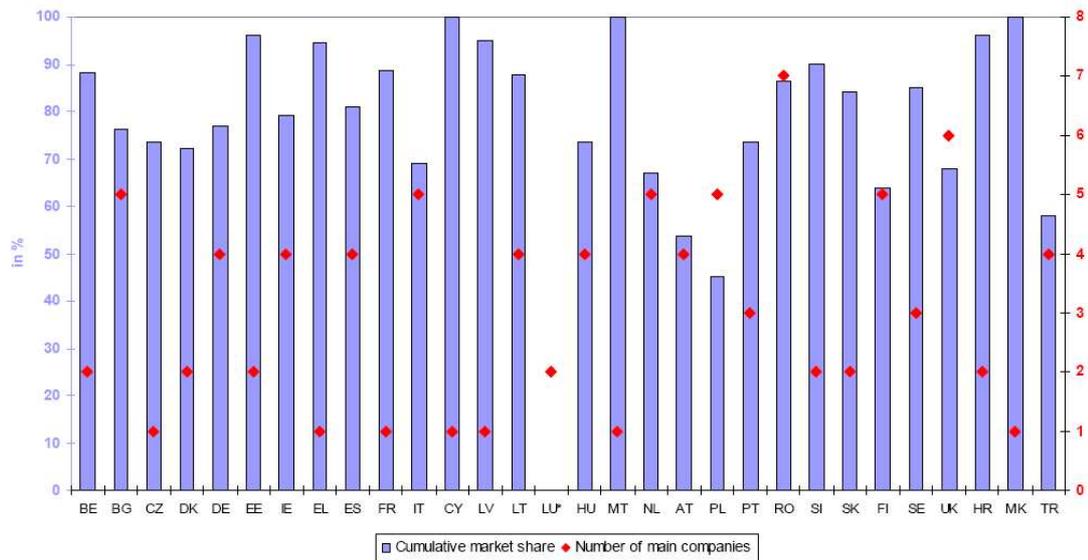
In the first period of concentration (1998-2002) the main driver of M&As operations was horizontal integration. On the contrary, since 2005, new drivers brought to a new wave of mergers and acquisitions:

- **Vertical Integration:** major players aim to enlarge their own business but not only. They also aim at diversifying their own procurement strategies, in particular for what concerns natural gas supply.
- **Gas/Electricity Business Joint:** the constitution of an integrated Gas/Electricity business portfolio gives major players the opportunity to reinforce their own market position (through final customer “dual offers” and CCGT plants better exploitation). Nowadays it seems quite clear that to be competitive in the electricity generation is fundamental to have a low cost access to gas supply and that is why players which act in both the markets are favoured.
- **Financial Resources availability:** bigger players own huge financial resources thanks to high gas and electricity prices that bring substantial cash flows. This boosts companies’ investments.
- **Diversification of regulatory risk:** various EU members adopted different laws and regulations to rule their own internal market and this leads, for example, companies interested in nuclear power plants to expand themselves in countries where this kind of plants are not banned.

Anyway the new wave of European M&As in the field of energy markets has to face the strengthening of European Commission controls over merging operations that could damage competition increasing the opposite effect of concentration. This means that the role of European Commission is going to be relevant in the future shaping of the entire energy market.

The oligopolistic structure reinforcement also poses a problem about final consumers protection and market efficiency. Transnational groups presence could slow down the competition development and the increasing conditions for an internationally competitive market. Moreover though gas/electricity business joint is a tool to increase the companies wealth and power, this could lead to a limitation of the number of new entrants in both the markets. In the end we can assert that even though the electricity and gas markets are formally liberalized, these still suffer huge limitations to competition as a few big groups dominate the European scenario.

Graph 1: Number of main electricity generating companies and their cumulative market share, 2006



* Information on market shares in generation non available.

Table 2: Number of main electricity generating companies and their respective market share in generation and their installed capacity, 2006

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT	LU
Number of main companies	2	5	1	2	4	2	4	1	4	1	5	1	1	4	2
Share in generation (%)	88.1	76.2	73.5	72.0	77.0	96.0	79.1	94.6	81.0	88.7	68.9	100.0	95.0	88.0	:
Share in installed capacity (%)	87.6	59.8	69.4	66.0	62.0	94.0	83.2	95.3	80.0	86.0	74.3	100.0	92.0	74.8	:

	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	HR	MK	TR
Number of main companies	4	1	5	4	5	3	7	2	2	5	3	6	2	1	4
Share in generation (%)	73.4	100.0	67.0	53.7	45.0	73.5	86.4	90.2	84.4	64.0	85.0	67.9	96.0	100.0	58.0
Share in installed capacity (%)	72.2	100.0	60.0	51.4	36.9	71.3	74.2	90.6	83.8	57.0	79.0	59.9	98.0	100.0	:

Figure 9 Source: Eurostat (2006)

ITALIAN DEPENDENCY

Various sources (AEEG, ENEA, Eurostat, Acea Electrabel) argue that Italy relied on natural gas and oil more heavily than other EU27 countries in recent years. Almost 70% of electric generation has been produced exploiting these sources, even if in Italy the exploitation of oil is progressively diminishing being substituted by gas as in almost every European country.

Interesting and encouraging data on Italy are the use of geothermic source that, even if very low, is almost completely absent in every other European country and the great exploitation of hydroelectric sources (almost 13% of the whole electricity generation) that is superior to the European average.

Anyway Italy still suffers a negative pay off (12,5% of energy is imported from foreign countries): Italy imported almost 48000 GWh in the last years and exported only 3000 GWh. The country in particular experienced a rise in the Swiss import rate.

The general condition is characterized by a huge energy dependency on combustibles like oil and gas (86,8 % Eurostat 2008).

Moreover Italy is facing the gradual reduction of the monopolistic power of its main incumbent operator (ENEL) as many other European countries after the beginning of the liberalization process, but ENEL anyway still remains the main player in the market²²⁶.

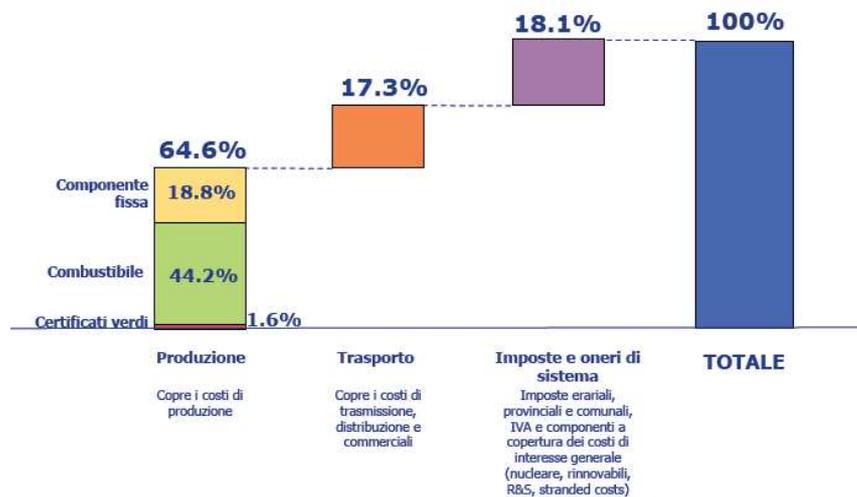


Figure 10 Electricity price structure in Italy (Source: Acea Electrabel 2008)

In 2007 new electric generation capacity has been installed, in particular numerous thermoelectric plants have been realized by the main market operators like ENEL and Edison.

The first one is also the main RES exploiter although other companies are investing in the fields of fotovoltaic, biomass (A2A S.p.A.) and eolic (International Power).

An important feature of Italian market is the electricity price: the average price to consumers in Italy is around 74€/Mwh (January 2009 GME), that is higher than the average European price due to the high Italian dependency.

The price of electric energy can be divided as follows:

- 64,6% Production costs;
- 18,1% Taxes;
- 17,3% Transportation costs.

²²⁶ We will broaden this topic in the paper.

SOCIETÀ	M(m ³)	QUOTA %
Gruppo Eni	7.875	86,2
Gruppo Edison	674	7,4
Gruppo Royal Dutch Shell	340	3,7
Gruppo Gas Plus	236	2,6
Altri	6	0,1
TOTALE	9.132	100,0
TOTALE (Fonte: MSE)	9.706	-

Figure 11 Natural Gas Market Share (Source: AEEG 2008)

COUNTRY	€/100kWh	INDEX
Latvia	7,3	30,67227
Hungary	13	54,62185
Bulgaria	7,2	30,2521
Estonia	7,9	33,19328
Poland	13,8	57,98319
France	12,1	50,84034
Finland	11,5	48,31933
Lithuania	8,7	36,55462
Croatia	9,8	41,17647
Sweden	16,1	67,64706
Denmark	24	100,8403
Greece	9,8	41,17647
Slovenia	11,2	47,05882
Austria	17,4	73,10924
Czech Republic	10,6	44,53782
Spain	14	58,82353
Romania	11,4	47,89916
Portugal	15,6	65,54622
Belgium	16,8	70,58824
Malta	9,9	41,59664
Netherlands	17,2	72,26891
Slovakia	13,7	57,56303
Germany	21,1	88,65546
United Kingdom	14,8	62,18487
Italy	23,8	100
Cyprus	15,7	65,96639
Ireland	19,2	80,67227
Luxembourg	15,9	66,80672

Figure 12 Source: Eurostat (2008)

For what concerns natural gas, Italy drastically diminished its production in recent years; the main producer and importer is ENI with an 80% market share, followed by Edison. Our country import this combustible mainly from Algeria and Russia.

Companies' Strategies in the New Energy Market: Effects of Liberalization in Italy

Liberalization in Italy hasn't had the expected success yet and the same discreet result has been experienced by other countries in Europe. The main reasons for this unsuccessful development are to be searched in the birth of a "hybrid system".

We can define hybrid system the one in which, although the numerous efforts made by EU through laws and other interventions to introduce a competitive mechanism in the energy markets, both the Gas and Electricity sectors stay dominated by a leading player (ENEL in the electricity market, ENI in the gas Market), on which the political influence has still a big impact.

Furthermore is quite curious to notice that many companies, also the smallest ones, remain State owned or controlled by local government and consequently suffer political pressure.

The two main players were involved in many M&As operations upstream but also downstream (in the distribution and selling sectors) making it hard in particular to potential new entrants to join the market.

That's one of the reason why the Italian market (and not only the Italian one) remains an oligopoly. The space that was given to competition is only a "formal" space. In other words the market has been regulated with new interventions and laws with the intent of opening it to competition, but remains still dominated by a few operators whose control is in great part in the hands of the State and the main consequence is that the price often depends on the behavior of these incumbent companies which do not seem to care that much about market efficiency.

An interesting feature in fact is that bigger players under State control don't seem to pursue public wealth, of course not as the main purpose. The Italian Antitrust authority already acted against ENI in particular for suspected abuse of market power.

So although the numerous laws introduced since the Bersani decree, it doesn't look like the transparency has grown in the energy sector.

These features damage the final costumers who find themselves paying energy prices which are not the result of a competitive and efficient market structure.

REF scholars claim that in Italy we can find competitions elements put side by side with residual monopolistic characteristics and privately owned enterprises whose control is still mainly in the hands of the State (Saraceno, Scarpa 2006). One reason why it is easy to find hybrid structures in many European countries could be the States' behaviors which aim at

enlarging their energy companies international presence²²⁷. This could be one of the reason why the Italian government too did not completely gave up its control over ENI and ENEL.

An AGICI 2007 research claims that Italy was characterized by many concentration operations in between 2005 and 2006: the M&As in the country raised from 76 to 93. The main actors of this phenomenon were, on the one hand, bigger players as ENI, ENEL and Edison which reinforced their crossborder expansion and, on the other hand, local utilities which aimed, on the contrary, at reinforcing their local position. AGICI research sustains that the strategic driver which brought to these numerous M&As operations is the horizontal integration intent. Vertical integrations, which are often pursued by bigger players, were not particularly frequent even if local utilities too exploited this tool to obtain access to generation capacity. Many scholars believe that V.I. upstream could increase companies' efficiency and this enables them to face stronger competitors.

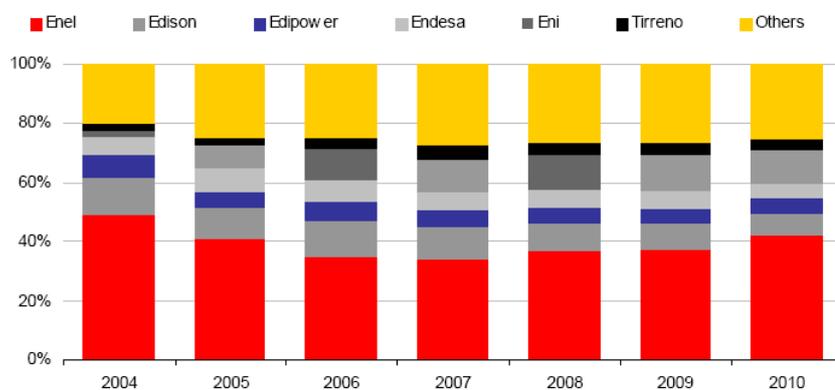
More than 60% of the operations involved utilities in the north of the country. Moreover ENEL expansion activity seemed very interesting as it recently acquired Slovenske Elektrarne, reopening its way toward nuclear power.

Foreign companies are pursuing Italian market penetration too: E.ON extended its influence with the acquisition of a utility in Veneto, while British Gas joined the electric business acquiring thermoelectric plants from Edison.

So the national trend doesn't seem so different from the general one: concentration and aggregation are going to increase in a market where ENEL, that remains the main operator, seems more interested in expanding itself abroad.

Anyway it looks like Italy is one of the countries that most reduced (at least in the electric sector) its main operator power over the market thanks to the breaking down of 3 Generation Companies (Gen. Co.).

On a strategic basis, the market liberalization brought companies to pursue two main aims: production mix optimization and cost reduction.



²²⁷ It is exactly what we showed in the market liberalization paragraph.

Figure 13 Electricity Generation Market Share Scenario (Source: REF 2006)

All the companies went through an increase of their electricity generation with a contemporary cost reduction thanks to a better generation mix and a better cost management (in particular HR costs). The electricity sector in fact is the one in which the employment rate has grown less.

ENEL was subjected to a market power reduction but it remained the main market player thanks to a series of expedients. First of all ENEL is the company which most reduced its personnel. Moreover it increased its own generation capacity thanks to the investments in new plants and improved its generation mix (increasing in particular the hydroelectric quota) reducing the average cost of combustibles exploited to produce electricity.

This success had a great impact on stockholders: the pay out ratio in fact has been very high in recent years and the State gained two billion euro dividends while at the end of the 90's, when it owned 30% more stocks, it gained "only" 990 millions euro.

Other companies did not benefit as much as ENEL from the generation mix change as they could not exploit the same economies of scale. All the companies anyway reduced their personnel and increased their production thanks to increased production efficiency and installed capacity.

Edison has been involved in many M&As operations and capacity increasing projects. ENEL on the contrary reduced its efforts in expanding the installed capacity (also not to exceed the generation limit imposed by the Antitrust authority²²⁸) but invested in repowering projects.

New entrants and local utilities were less involved in this kind of operations.

Anyway, in conclusion, the huge gains of the companies enabled them to increase their investment in capacity increase. We should keep in mind that Italy suffer of a big negative import-export imbalance and investments in generation plants are the main tools against dependency.

ENI is similar to ENEL. The two companies share many features but the main difference is the sector in which the two lead. Although in fact both are involved in the gas and in the electricity markets, while ENEL is leader in the electricity one, ENI is leader in the gas field.

ENI gained huge profits during the last decade that brought it to pay substantial dividends to all of its stockholders, including the State that at the end of the 90's started selling 60% of ENI's stocks.

The selling of these stocks reduced the Debt/PIL rate by 2,2%.

Anyway, ENI dividend policy was definitely less overstated than ENEL's, but it is to be noticed that in the gas field ENI has had the highest pay out ratio compared to every other European player.

²²⁸ *Players must not produce more than 50% of the whole Italian electricity generation.*

ENI's organization is structured in Divisions and the profits increase is to be attributed to two of these in particular: Exploration & Production and Gas & Power. The first one works in the field of research and production of hydrocarbon internationally, while the second works in the field of procurement, transport, distribution and selling of gas. The contribution of E&P business has grown exponentially in the last decade while the G&P suffered some changes among which the new entrants joining the market.

ENI group enacted many measures to face the increasing competition since 2000, almost like ENEL did in its own market. First of all, ENI too began expanding itself abroad. This strategic choice brought ENI to raise its gas selling market share and its involvement in the international transports of gas. To achieve this success ENI reinforced its relations with many foreign companies and started acquiring many other players. These choices allowed ENI to strengthen its upstream position. Nowadays it controls prices and international infrastructures access.

The strengthening of the main gas player was also accomplished by strategic choices made inside the Italian borders as the acquisition of Italgas.

Moreover although this put ENI in big difficulty with the Italian Antitrust Authority, ENI started an "innovative selling policy": this means that ENI started selling gas to other importers at the Italian borders, tricking the generation and procurement limits imposed in our country. This strategic choice damaged seriously the development of competition in the sector, but it is also important to consider that the ENI group developed the best commercial and marketing initiatives toward companies clients after the market opening.

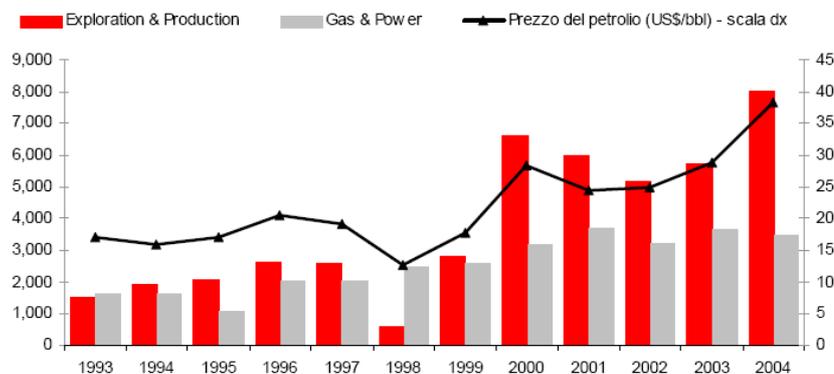


Figura 14 Evolution of G&P and E&P Profits (Source REF 2006)

Diversification was another tool through which the company increased its competitiveness and its profits. ENI in fact expanded itself in the electricity generation market through the creation of a new unit: Enipower.

In conclusion we can say that ENI exploiting its dominant position and its superior profitability to reinvest in new opportunities, didn't suffer the market liberalization effects.

So a final overview of the whole energy markets makes it possible to say that in Italy, as in many other European countries, new entrants and minor companies suffer the vertical integration of incumbents and their market power.

In the gas market different laws and interventions make it even harder to pursue a competitive market structure. For example the authority did not decide to separate the control of the transport net from the supply of gas with dangerous consequences on the development of infrastructures and procurement security.

Experiences like this are the perfect example of an hybrid structure like the one we can observe in Italy: imposing limits to the gas selling and imports was not a concrete choice and didn't have the wished effects being the vertical integration of ENI left untouched.

Another demotivating feature for new entrants is the longevity of procurement contracts in the gas sector. These contracts last for 15 years or more making it harder to new players to join the upstream. So it is enough clear that the procurement stage in the gas sector is very difficult to join for new entrants.

Only the downstream stage seems easier to access for new entrants.

What we can say about the future of the market is that the critical phase of procurement shortage should be over at the end of the decade if there won't be delays in the realization of new infrastructures like le TAG and TTPC. Enlarging the infrastructure capacity could bring to an effective competitive structure in the gas market with good effects on the price. Moreover it could reduce ENI's market share increasing Edison's and ENEL's ones and it could reduce de geopolitical risk including new supply countries like Egypt and Qatar.

In conclusion the gas market could become a competitive market only if ENI will reduce its control over the transport infrastructures. The Italian geographic position could also represent an enormous opportunity for the gas market. Increasing its infrastructures could allow the players in the market to work as European Hubs for gas supply.

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HUMAN RELATIONS AND COMMUNICATIONS IN A GLOBAL ENVIRONMENT: STRATEGIES AND SOLUTION IN PERFORMANCE MANAGEMENT

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WITH A SPECIAL ITALIAN EXCERPT ON THE “PRACTICAL IMPLICATIONS- MANAGEMENT OF PEOPLE
IN THE PUBLIC ADMINISTRATION”

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Purpose - This paper examines global strategies to improve the individual performance of managers in organizations. The authors present a methodology to establish outcomes driven performance appraisal criteria for managers, plus systems accountability and evidence to support goals and objectives in a global environment. The article concludes with an action plan for a manager's role in the performance management process.

Design/methodology/approach - Performance management systems need fixing (Brown, 2005) and based on research findings an attempt to provide solutions for practicing managers are outlined in this paper. Employees find the performance appraisal process useless, while managers acknowledge that the performance management systems have failed to add much value in the organization are examined.

Findings - By using a systematic approach, human resource executives can offset many challenges and problems dealing with performance management.

Originality/value – The paper contributes to performance management literature and provides value for practitioners searching for methodologies that are driven by accountability measures and outcomes that have interwoven benefactors.

Practical implications – Executives to front-line managers will find the challenges and solutions outlined in this paper realizable in their performance management process. Key linkages in the accountability and outcomes will immediately impact an organization's approach to effectively measure the performance of managers with outcome driven criteria.

Keywords Performance management, Performance appraisal process, Managers, Organizational behavior, HR Development, Process methodology, Accountability

Paper type: General Review/Case Study/Literature Review

INTRODUCTION

Challenges facing organizations in a global environment

Today, many organizations use the term performance management to include many activities to ensure the success of the organization. An organization's success can be defined by measurable outcomes specific to the organization's goals, the role of the managers, performance metrics at the department level, and process models built around products, services, or employers. Organizations with strong performance management systems will build an

environment in which the organization's actions reflect value creation, and therefore, are likely to outperform their competitors.

Organizational effectiveness is the lifeblood to many organizations today that use performance management as part of their value creation within the organization. Value creation manifests itself throughout the business when executive leadership builds an environment that defines the heart and soul of the organization (Mintzberg, 1973;1975). In order to accept a process, methodology, or procedure that often is mechanistic in nature during the performance review, organizations must demonstrate that behavior and decisions have interwoven benefactors. These include; managers, executive leadership management, human resources management, and individual employees. Secondary factors are built around dealing with customers, partners, suppliers, and local communities. This paper focuses on the challenges and solutions for effectively measuring the performance of managers.

Managers are on the front-line to establish individual performance and development objectives that are action driven. The most effective performance review processes occur year-round. A survey of more than 48,000 employees, managers and CEOs from 126 organizations in the United States found that just 13 percent of employees and managers, and only six percent of CEOs say their organization's performance appraisal system is useful (Brown, 2005). Employees find the process useless, while managers find that the performance management systems have failed to add much value in the organization. Many employees believe the flaw in performance management lies with the managers while the managers believe the flaws lie with the human resources department and the CEOs. Problems in communications, trust and knowledge continue to plague organizations during economic "boom's" or "bust's". Researcher today are still asking the same questions postulated by H. Likert in his 1967 book "The Human Organizations: Its Management and Value" about trust between managers and employees (Mishra, Mishra & Speitzer, 2009). Mishra, Mishra & Speitzer (2009) findings have not added much value to the body of knowledge in ways to improve or change what Likert asked over 40 years ago, that is "Are top managers doing enough to empower their employee's?". The three authors brainpower together write at the end of their prominent MIT Sloan publication that " Business schools and academics have their roles to play in helping organizations and individuals adapt – not only in assessing the effectiveness of different approaches but also in advancing hands-on solutions" (Mishra, Mishra & Speitzer. 2009). Indeed, advancing hands-on solutions is an excellent methodology to implement in education, again, thoughts from the authors not adding much value to the body of knowledge of specific changes need to the "practice" of management in education. The advancement of hands-on solutions had already been articulated by Mintzberg (2004; 2005) for new approaches in education that business schools needed to teach. The authors (Mishra, ed.) keep a database of former students (over 1,000) to help leverage jobs opportunities is a noble service, but if the database exist with managers not educated in the "practice" of management that business schools have taught them, they you have not advanced the inherited problems found with managers that Likert asked in organizations or what Mintzberg has asked in business education!

MEASUREMENT OF VALUE CREATION DIMENSIONS

O'Sullivan (2009) points out the importance to measure the observed performance of an employee in a reliable and valid manner because such quantification can be helpful for reward allocation (distributive justice) and for feedback provision (preserving a sense of procedural justice while assisting employee development). The performance management literature outlines several key attributes that should be measured for technical or contextual dimension. But with much of quantitative construct measures it becomes a function of the measurement techniques used, as stated by O'Sullivan (2009) that can usually be measured in a variety of ways: the measure can be trait-oriented, behavior-oriented, or outcome-oriented. By combining the technical "hard" and contextual "soft" with accountability measures that are based on outcomes, can provide managers with a framework for supportive implementation practices. The relationship between individual and organizational values and the contributions to organizational productivity is evident (Preziosi, 1997). Preziosi (1997, p.2) emphasized: "Organizations that are well led will be productive organizations." Key linkage between the individual and organization's values can be found with the following value creation and leadership dimensions:

Value Creation Dimension:

The Value Creation dimension defines the behavior and the decisions of the organization using a multi-faceted approach dealing with customers, partners, suppliers, and the local communities that surround it. Examples that reflect value creation of the organization include:

<i>1. A focus on serving customers;</i>
<i>2. A commitment to meeting business objectives;</i>
<i>3. A sincere respect for individual or team contributions;</i>
<i>4. An awareness of social responsibility with the decision to be good corporate citizens;</i>
<i>5. A commitment to ensure that the organization is a fun place to work.</i>

Table 1.0 – Example of Value Creation

Leadership Dimension

Organizational leadership is driven from the supervisors or line managers that are responsible for creating value within the functioning unit. Human relations (HR) factors can impede success with problems that occur when people work together no matter the industry. For example, likes/dislikes, dissatisfactions, grievances, jealousies, misunderstandings, and even opposition to the common cause by employees can be impediments for sustainability within the organization. Managers should integrate many of the HR functions into their work, working in partnership and holding HR more accountable in delivering organizational dominance (Ulrich, 1998; Legge, 1995). Jackson and Schuler (2002, 2003) called this the "HR Traid" with such accountability found across hierarchy of control (HR, line managers and employees). Caligiuri and Tarique (2009) preferred to focus on global leaders as high-level professionals such as executives, vice presidents, directors, and managers who are in jobs with some global leadership activities such as global integration responsibilities. Whichever level within the command of control defined for the organization's assessment needs, it does not alter the overall

accountability requirements for performance management. The leadership dimensions plan an important role in developing and sustaining the organizations competitive advantage over time.

Effective leaders with the organization are those who can establish an environment in which people can advance and build an environment in which the organization's actions reflect value creation activities, by:

<i>1. Demonstrating the organization's values in behaviors, actions, and relationships that align to decisions;</i>
<i>2. Creating a sense of shared ownership and account-ability among team members;</i>
<i>3. Inspiring and aligning human resources by communicating a compelling vision;</i>
<i>4. Encouraging people to perform at their full potential by providing development, coaching, and rewards and consequences for all levels of performance;</i>
<i>5. Genuinely encourage people to embrace change and quickly adapt to new ways of doing business.</i>

Table 2.0 – Example of Effective Leadership

Knowledge workers

In today's knowledge economy, knowledge management is increasingly essential for organizational success. Creating knowledge workers who exemplify the knowledge required to lead or contribute to the viability of the company. Key attributes in knowledge management are cooperation, networking and collaboration. Two major workplace shifts make knowledge management both essential and challenging--the changing nature of work itself and the changing nature of the work environment becoming increasingly global and virtual (Tetrick & Da Silva, 2003)

The knowledge worker has 1.) Product or Service knowledge, 2.) Business and finance knowledge, 3.) Market/Industry knowledge and 4.) Multinational knowledge

The knowledge worker can:

<i>1. Evaluate and integrate information to create critical action items;</i>
<i>2. Engage in decision-making that is based on an understanding of the core competencies of the organization;</i>
<i>3. Determine and balance short and long-term goals that align with all stakeholders;</i>
<i>4. Identify opportunities and threats;</i>
<i>5. Encourage new ideas and reward risk versus rewards relevant to performance and development objectives;</i>
<i>6. Be action oriented and support decision-making in a dynamic environment;</i>
<i>7. Be accountable and take personal responsibility for decisions regardless of outcome;</i>
<i>8. Make timely decisions and take corrective action if things do not go as planned.</i>

Table 3.0 Example of Knowledge Worker

Build and Sustain Partnerships by Delivering Customer Value. This can be done by:

<i>1. Creating, developing and maintaining strategic alliances, partnerships and relationships that result in cross-organizational cooperation.</i>
<i>2. Cooperating internally in order to compete externally</i>
<i>3. Aligning work with that of related teams</i>
<i>4. Utilizing all resources available across the organization</i>

Table 4.0 Example of Partnerships

Accountability

Gwynne (2002) cited research work that revealed three basic criteria that managers commonly rely on in their performance review of employees: Task performance -- carrying out the responsibilities of the job; citizenship performance -- willingness to help colleagues and volunteer at corporate events and, in general, how they contribute to a positive image of the company; and counterproductive performance -- indulging in negative behaviors such as drug taking or arguing with coworkers and, in general, whether they harm the organization's image.

Effective management will coordinate the roles and responsibilities of employees through criteria determinants that must be an interwoven part in the performance management process weekly, quarterly or annually. Gwynne's cited research work suggested that mini-appraisal every three or four months and even daily diary keeping by managers would be an effective management approach to proactively demonstrate to the employee that the manager cares about their work. Employee's appreciate people, especially their manager who shows through their deeds and actions that they really care about them (Nelson & Economy, 2005).

Key linkage between the individual performance and development objectives/expectations can be found with the following accountability and outcomes driven criteria:

ACCOUNTABILITY AND OUTCOMES DRIVEN CRITERIA

Establish Individual Performance and Development

Objectives/Expectations

The individual's performance and development objectives should reflect his or her responsibilities throughout the year (accountability). They should be comprised of evidence to support their performance (outcomes) and must be aligned to the organization's mission, unit goals and business objectives.

Criteria for Stated Objectives (Accountability)

Individuals should state objectives in terms of what is to be accomplished and provide active verbs to describe such activities. For example:

1. Design and develop a process used for a call center manager to monitor incoming customer calls wait time.
2. Create a new business unit to consolidate product and services.
3. Analyze budgets and provide quarterly reports to investors.
4. Utilize information that best meets the organization's strategic plan.
5. Conduct customer surveys for each business unit.
6. Demonstrate capability to electronically locate, retrieve, and integrate human resources strategic plans.

Criteria for Stated Evidence (Outcomes)

Individuals should provide evidence (outcomes) that supports individual and/or team objective(s), the organization's mission, the unit goals, and the business objectives. For example:

2. Designed and completed a new flow to monitor incoming calls on 4/15/09. Reduced customer wait times 50 percent by developing a new decision making tree for help desk staff. The new tree was implemented in the existing application software and provides staff with improved
 1. decision making capabilities at one-half the time.
 2. Re-organized two business units (wireless products and computer products) into a fully functional product and service division on 6/11/09. Reduced staff by fifteen employees by using the company's voluntary retirement policy. Redesigned operational and service policies to assure a seamless customer transition and the rating of employee satisfaction on 4/8/09.
 3. Published investor quarterly report on 7/7/09.
 4. Obtained primary and secondary research data on competitors' market placement to help align the organization's strategic plan for future business opportunities in the southeastern division. Completed data analysis on September 12, 2009.
 5. Customer Satisfaction surveys completed on July 7th, 2009. A 75 percent response rate for each business unit was met. Results showed that each business unit met or exceeded customer expectations for product quality, service and reliability.
 6. Obtained secondary research data to benchmark existing human resource outsourcing strategies in three industries: transportation, health care and telecommunications. Completed data collection on August 9, 2005 using a shared database and provided a complete report analysis to management at the strategic initiative meeting.

Additional criteria for individual's performance and development objectives should also reflect his or her Affirmative Action/Diversity objectives and evidence throughout the year. Affirmative Action means taking positive steps towards creating a work environment free from

all forms of discrimination. Specifically for managers, it means providing all employees with opportunities to make the most of their talents and aspirations.

Manager's roles in performance management

The manager's role in performance management is to share an equal part of the employee's performance process. Training and development needs must align with the employee's interests and development plan. For example:

1. What specific skills, knowledge, behaviors, or capabilities need to be developed to enhance the individual's ability?
2. How does the individual's ability align with performance objectives and/or job requirement?
3. Can each development objective demonstrate, specific outcomes relevant to each performance objectives and/or job requirements.

Developing An Action Driven Development Plan

Manager's in today's organizations are still accountable for each employee. Certainly, the knowledge worker has transformed many organizations to be more effective and efficient in aligning the mission with individual goals. But, manager's have the responsibility to the individual to provide an environment that is safe, efficient, positive, and action driven. Some items to be considered to when formulating the development plan are:

<i>1. identification of action steps.</i>
<i>2. identification of resources needed.</i>
<i>3. identification of roadblocks and anticipated barriers.</i>
<i>4. determine of how results will be measured and the completion date.</i>

Table 5.0 Plan of Action

Specific action steps may include: job assignments, coaching, training and education and organizational/work redesign. Manager's must articulate and encourage specific actions necessary to help the individual achieve each objective in the development plan. Such actions reflect the qualities of leadership and part the human relations function of performance management. Specific steps taken by a supervisor or manager are:

<i>1. Develop or update job descriptions for employees.</i>
<i>2. Actively participate in training and demonstrate competency-based on training received.</i>
<i>3. Know and implement compliance requirements in the work area.</i>
<i>4. Know and follow established job specific and facility wide policies and procedures and rules.</i>

*Table 6.0 Example of Specific Action Steps***Interim Review(s)**

Discussions between the manager and the employee should be documented and reviewed. Periodic reviews throughout the year are encouraged.

Overall Annual Performance

There should be a summary of the overall Annual Performance Plan showing the extent to which the employee has achieved each performance and development objective. An additional challenge is to align the Value Creation and Leadership Dimensions with the individual objectives.

Employee Comments

Employee comments are always a challenge for open, honest and sincere thoughts for managers and employees. The fallacy that has challenged the overall annual performance plan is when managers lack a sincere and genuine insight for relationship building with subordinates. This undermines the entire process when employee trust is lost and they feel part of a mechanistic process rather than benefactors that is part of the organization's performance management process. Killian (1978) identified communications with employees and empathy as basic behaviors that effective leaders must have to understanding the central tendencies in employee behavior. Appreciation for good work listed number one and feeling "in" on things listed number two. Managers can create an environment with employee when these two components are met with genuine sincerity in the performance management process.

CONCLUSION

An important strategy of the performance management process is development of managers and employees that are able to communicate openly to improve or build on the performance management process. Managers and employees are faced with challenges and problems when dealing with performance management. When more solutions as presented in this article are offered to human resource executives, then more managers will be able to meet the challenges in performance management for their organization.

SPECIAL ITALIAN EXCERPT ON THE "PRACTICAL IMPLICATIONS- MANAGEMENT OF PEOPLE IN THE PUBLIC ADMINISTRATION"**La Gestione delle Persone nella Pubblica Amministrazione**

A differenza che nel settore privato, la gestione delle risorse umane, o ~ meglio ~ la "gestione delle persone", nell'ambito dell'amministrazione pubblica presenta un ostacolo di fondo: non esiste il fine della massimizzazione del profitto (Giannini, 1986). La mission dell'organizzazione, così, non comporta risultati quantitativamente misurabili, ma si situa su di un piano ideale. Ciò la rende meno identificabile con chiarezza e meno percepibile dagli attori

coinvolti. L'efficienza organizzativa e la produttività individuale rischiano quindi di risentirne in modo pesante.

Gli attuali orientamenti della ricerca scientifica in materia danno particolare valore a concetti quali quelli di "empowerment" e di "commitment". In effetti proprio l'enfasi su tali aspetti in ambito organizzativo pubblico può consentire di uscire dall'impasse di cui si è detto (Alberoni, F., 2002).

Le persone, in qualunque contesto di lavoro, hanno necessità di significato e di valorizzazione. Si rivela fondamentale, dunque, fare leva sui bisogni esistenziali di crescita e di sviluppo personale e professionale, così come su quelli di empatia/armonia, senso d'appartenenza, comunicazione interpersonale, soddisfazione per le realizzazioni ottenute. Nel settore pubblico ancor più che nel privato, un buon leader deve riuscire ad implementare tutti gli aspetti indicati ed a portarli, per così dire, "a piena maturità" (Rifkin, J., 2002). La fidelizzazione nei confronti del servizio d'appartenenza assume peculiare importanza: occorre conferire un ruolo-chiave all'eterodirezione verso i clienti/cittadini, rafforzando il commitment dei team organizzativi. Al posto del ruolo di potere, il leader deve rivestire un ruolo di servizio (Amovilli, L. 1995). Al posto del movimento con forza centripeta verso l'interno dell'organizzazione burocratica, il leader deve dare impulso ad un moto centrifugo positivo di operatività verso la popolazione. Il vertice del sistema non è più, in tal modo, quello della piramide gerarchica, ma diviene esterno, posto nel cliente/cittadino, al quale è fornito il servizio.

Il leader assume una funzione di coaching, vale a dire di sostegno e di accompagnamento del cliente interno verso il raggiungimento degli obiettivi dell'ente.

In questo quadro operativo, la formazione rappresenta una preconditione-chiave: è necessario che i "capi" per primi e poi, a cascata, via via il restante personale siano interessati da un processo di formazione continua atto ad aumentare consapevolezza e responsabilità. Proprio in forza dell'importanza di quella che in senso lato può definirsi istruzione permanente, i percorsi di carriera vanno costruiti incentrandoli su di essa (Robinson, D., 1990).

Si tratta, a ben vedere, di una rivoluzione copernicana rispetto alla concezione corrente del lavoro nella pubblica amministrazione. Solo così, peraltro, la produttività può essere portata ad un livello considerevole e nel medesimo tempo può realizzarsi il benessere organizzativo che chiunque auspica.

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DECISION-MAKING UNDER COMPLEXITY: THE CASE OF DISTRICT SME^{*}

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Purpose – This study aims at examining the district SMEs decision-making under complexity. The purpose of the paper is to confirm the idea of industrial district as a source of opportunities which fosters consonance and cooperation among district firms and hence supports the decision-making of individual entrepreneurs, in the perspective of value creation and long term survival.

Design/methodology/approach – Complexity Theory, Viable System Approach and Informative Variety Model have been used for the analysis of the district firms decision-making process.

Findings – The findings suggest that the different degree of development of a district influences the decision-making of a district firm. Indeed, by comparing the performance of two Italian industrial districts, specialized in the industry of tanning, that is Santa Croce sull'Arno – configurable as complete viable system – and Solofra – definable as embryonic system –, it emerges the lower degree of development of the latter and the less competitiveness of its companies which tend to compete in individual way also within the international markets.

Research limitations/implications – The discussion stresses a series of research propositions for future researches aimed at improving the understanding of the problem. As for limitation, only two cases in a single sector have been analyzed and there is a lack of concrete outcomes concerning the decision process of district SMEs.

Practical implication – The findings suggested some managerial implications to govern and simplify complex decisions for district SMEs.

Originality/value – The paper provides a new methodology to examine the decision-making of district SMEs.

Keywords – Complexity, Knowledge, SME, Industrial District, Viable System Approach (vSa), Informative Variety Model.

Paper type – Conceptual/Research paper

INTRODUCTION

This paper aims at examining the competitiveness of district SMEs facing with the challenge of complexity, by assuming the district, they belong to, as a solution for government which induces to consider complexity as an opportunity rather than a managerial constraint (Vicari, 1998, 2008).

The analysis moves from the essential literature about complexity, useful to analyse and interpret the firms' decision-making contexts, and then, considering the most recent

^{*} Also if the paper is the result of common reflections, the paragraphs 1, 2.2, 2.3, 3.3 e 4 are attributable to Marialuisa Saviano, while the paragraphs 2.1, 3.1 e 3.2 are attributable to Massimiliano Berardi.

contributions concerning the systemic thought (Golinelli, 2000, 2005; Barile, 2005, 2009), applies the subjective perspective to the complexity and its systemic interpretation.

By assuming the point of view of district SMEs and considering the Viable Systems Approach (VSA) (Golinelli, 2005) and the model of Informative Variety of viable system (Barile, 2008, 2009), the paper aims at understanding the decision-making under complexity.

In particular, while it is difficult, or sometimes even impossible, for an individual firm to manage the environmental complexity, the district system, as a network which supports firms to develop creative and innovative networking capacities, represents an opportunity for SMEs to share a multitude of informative varieties.

In such a view, by adopting the (VSA) methodology and making comparisons among different Italian production systems, we would verify the conditions under which the district represents an opportunity for SMEs to manage the complexity.

THEORETICAL BACKGROUND, METHODOLOGY AND PRELIMINARY INSIGHT

The complexity theory

The Complexity Approach is not a scientific theory, rather we can speak of epistemology of complexity as interdisciplinary study of complex adaptive systems and emerging phenomena. Although this concept has deep historical roots (the first insights on chaotic systems date back to the years between 1910 and 1930 - Poincarè, Birkhoff and Smale emphasised that non linear physical systems can show very complex evolutionary trajectories, whose dynamic depends on initial conditions), the movement of complexity gained ground in the course of the 1980s, with the foundation of the Santa Fe Institute by the work of the scholar Murray Gell-Mann (Lorenz, 1963; Pascale, 1999). Some scholars consider this "new science" as a paradigm shift from previous sciences (see Cybernetic Theory and the General Theory of Systems); differently, others imply that it is a new paradigm, by associating previous science with Modernism, and Complexity Theory with Post-Modernism or Anti-Positivism (Lee, 1997).

The different approaches to the complexity have in common the study of the systems, assumed as sets of elements and components that are organized and react to the structures and models they contribute to co-create: "[...] complex systems are systems in process, systems that constantly evolve and unfold over time" (Arthur, 1999, 107).

The complexity studies are focused on the problems linked to order creation and, particularly, on the effects caused by non-linear discontinuities, rapid transaction phases and co-evolution processes determined by events that are apparently disjointed and unforeseeable (McKelvey, 2004).

In this way, by adopting a systemic perspective, the complexity theory is focused both on the effects of the components' behaviour on the overall system which they belong to, and on the intra and inter-systems relationships (Carrol and Burton, 2000). Evidently, we are referring to the complexity of open systems, according to Prigogine, and not to that defined as computational complexity (Hilbert) which concerns closed systems (Prigogine, 1990). Business organizations are highly interdependent with external environment and, unlike the logic and

mathematics, they incur problems which are not clearly defined and evolve continuously because of internal and external constraints. Therefore, these problems are unlikely to be solved within the framework of traditional schemes.

A system cannot be examined and understood as a single phenomenon, but it should be contextualised within the framework of interconnections and interdependences with external environment, from which the same system derives the degree of complication or complexity of its representation (Siano, 1997). It follows a vision of the complexity as a science of contextualised mechanisms and interactions; the mechanisms may be described as the dynamic behaviours within the system (Hernes defines mechanisms as “a set of interacting parts – an assembly of elements producing an effect not inherent in any of them”. Hernes, 1998, 74); while the context may be configured as the set of structural, organizational and behavioural features affecting and regulating the nature and type of systemic dynamics. In other words, the context can be assumed as the complex of relationships and interactions among people, ideas, traditions, organizations, etc.

Not all the systems have, however, the same capacity for evolving and developing; in particular, this capacity is influenced by the degree of stability or instability of the system. While chaotic systems manifest a widespread inability for evolving and adapting because they are not able to organize and coordinate their behaviour; ordered systems are likely to be conditioned by excessive rigidity and static nature.

Indeed, a system may evolve towards the order, where it remains despite the disruption deriving from outside; towards the chaos, where it moves in an irregular and unstable way; towards the edge of chaos, where, while it converges towards certain attractors, sudden events may destabilize and remove it. Some system patterns that emerge over time have been distinguished: fixed or static, periodic or cyclical, chaotic or strange, coloured noise and random (Dooley and Van de Ven, 1999).

Kauffman (1991) theorizes that four variables (N, K, P and C) in non-linear dynamic systems affect the level of stability of the system and hence its evolutionary capacity, thereby also helping to define the relative degree of complexity:

1. “N” represents the system or organization’s number of components;
2. “K” is the level of inter-relatedness or interaction of the components, measured by inputs to each “N”, which introduces non-linearity into the system (Morel and Ramanujam, 1999);
3. “P” is the common schemata the components share and it is a measure of internal homogeneity;
4. “C” is an inter-system variable. Indeed, it represents the level of inter-relatedness or interaction of “N” across system (this is the second source of non-linearity – Schneider and Somers, 2006).

Nevertheless, the “traditional approach”, which focuses on the objective and implicit characteristic of the systems or phenomena, is not enough to fully understand the complexity of firms decision-making. Really, it is also necessary to adopt a subjective view of the complexity as the feature of the available representation of the same system. In this vein, phenomena are

neither simple nor complex, but they become simple or complex because of the cognitive process of the observer (La Moine, 1995).

The Viable System Approach to the complexity

The previous citation leads back under the systemic thought and highlights that although each theory uses its own specific approaches, definitions and images, the theory of general systems and the complexity theory are essential to comprehend and explain complex systems, and hence they make us able to examine the decision-making process and the strategic management of district SME in the context of complexity.

Starting from the concept of *viable system*, as a system that survives, is both internally and externally balanced, and has mechanisms and opportunities to grow and learn, to develop and adapt, and hence to become more and more efficient within its environment (Beer, 1991), the (VSA) methodology supplies a complete conceptual framework for firm government. The firm as viable system is an entrepreneurial organization that, on the basis of interconnections and interdependence among its internal components and some of these and the components of other systems, interacts with external entities (supra-systems), hence extracting from the environment its specific context of action – configurable as articulated set of constraints and rules – to learn, evolve, develop and improve over time its conditions of survival.

For this, Viable Systems Approach and Complexity Theory make us able to investigate the capacity of entrepreneur, as firm administrator, for making decisions necessary for long term survival under uncertainty and complexity (Saraceno, 1973; Golinelli, 2005).

By using the viable system approach to the complexity, it emerges the opportunity for adopting the paradigmatic dualism *structure-system* (Barile and Saviano, 2008) to stress the fundamental distinction between the structural and the systemic dimension of the observed phenomenon. On the basis of a static-descriptive structural reading, as well as in the most widespread proposals for an objective measurement of the complexity, it is relevant the analysis of components and relationships (*structure*) which characterise the observed phenomenon; but the true nature of the complexity emerges from the dynamic dimension (*system*) of the phenomenon, whose understanding and interpretation inevitably escape from any attempt of definition and classification (Figure 1).

The growth of the number of relations and interactions increases the complication of the phenomenon, because it enlarges the number of information and variables that must be considered and interpreted. Differently, the complexity expresses the incapacity for reading and managing the system of multiple and non linear interdependencies and interconnections which involve the system and its components, and of the system sensitivity to the change of initial conditions, considered that an event, even if small sized, can lead to disorder and chaos.

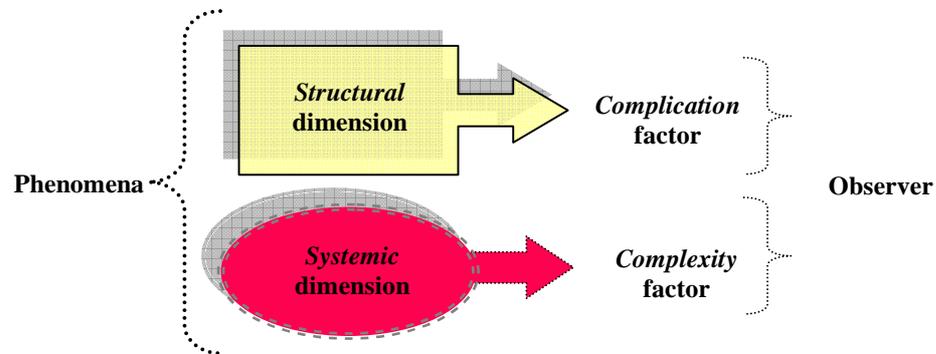


Figure 1 – The structural and systemic dimensions of complexity, Source: Our elaboration.

Obviously, the level of complexity is also conditioned by both the structure and the genesis of the system. On one hand, it depends on the degree of autonomy of its components or, in other terms, on the capacity of top management for coordinating and controlling the components. In particular, the more is the degree of autonomy, the more will be the complexity. On the other hand, it depends on the origin of the system: this can be top-down or bottom-up. It is clear that emerging systems (those that have a bottom-up origin – such as the consumption system) usually have a higher degree of complexity, especially if they lack common government, purpose and rules. For this, they are difficult to manage and control. The only way to partly regulate these kinds of systems is by imposing constraints and rules from outside.

The difficulty in managing such systems appears to be due to their nature of “systems of systems”: in other words, they are not individual systems, but assemblies of systems that are far from each other, but at the same time they are strictly interconnected and interdependent each other. In this way, small initial events can lead to complexity cascades of avalanche proportions, because of latent forces. Moreover, the borders and the relations of these systems are informal and unstable: this produces a further increase of complexity.

By using the systemic view, at the same time, a phenomenon could be complex for a person, but complicated or even simple for another. In such a way, the subjective interpretation of the phenomenon becomes relevant: the complexity does not concern the phenomenon or the system itself, rather the interpretative capacity of the observer. In such view, the complexity, that is a systemic phenomenon, as well as the systems, is not as such, but can only be observed (Mella, 1997).

Complexity and knowledge from the Viable System Approach

Bringing the complexity to the systemic field of the individual capacity for reading and interpreting a problem, we can emphasise the nature of the cognitive process, by defining the links among decision-making, complexity and knowledge.

In this sense, the decision-maker operates under complexity when he/she is not able to build an interpretative model of the problem (Barile, 2009): and even by acquiring more information, he/she just increases the entropy without finding any resolutive solution (Figure 2).

In this perspective, the complexity arises from the incapacity of the observer to build an interpretative model; on the contrary, the complication is linked to the difficulty to define such an interpretative model. In this sense, at the same time, low complex problems may be very complicated because the model that describes them may result difficult to be interpreted (Baccarani and Golinelli, 2008).

Hence, the knowledge capacity of the decider switches the problem from the indeterminateness of complexity to the certainty. The abductive hypothesis or the induction, which enable to build a resolutive interpretative model of the problem, depend on the perceptive and interpretative efforts of the observer and on its own informative variety.

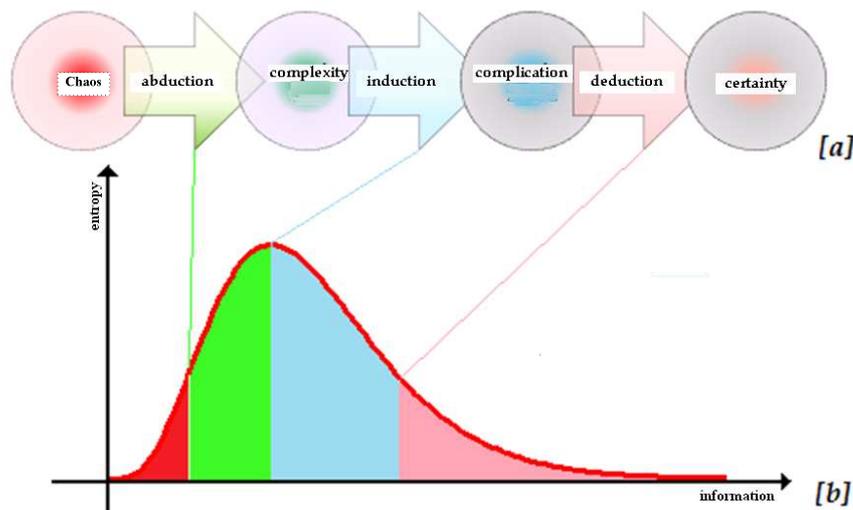


Figure 2 – The “four C” of knowledge, *Source: Barile, 2009, p. 53.*

Furthermore, the complexity refers to the functioning of the system that may be more or less understandable and predictable because of the variety and variability of internal components and of external relations; differently, the complication appears to be a feature of the model or of the representation of the phenomenon.

In order to govern the uncertainty and complexity, the decision-maker must increase his/her variety, by continually upgrading his/her cognitive background. For this reason, SMEs need to develop more stable and structured forms of collaboration and cooperation also outside of the traditional borders of their communicative network, by entering into organizational networks which enable them to increase their innovative capacity and the creativity that is necessary to operate in highly dynamic environments. In other words, in order to reduce the complexity and play the decision-making in a more aware way, the entrepreneur, as SME government, must increase his/her Informative Variety within a dialogical and collaborative framework with other entrepreneurs.

Following the methodology of *Informative Variety* of viable systems (Barile, 2009), the assumption of this paper is that individuals make decisions on the basis of three levels of knowledge, that is *informative units*, *interpretative schemes* (general and of synthesis) and *categoric values*, with regard to different levels of complexity and to the time. Categoric values and interpretative schemes act in reducing and simplifying the huge variety of the context, which would otherwise be perceived as a chaotic flux of informative units.

In particular, while under certainty decisions are easy to take by means of information units, under complicated circumstances, and particularly under complexity, the decision-maker must hold and use adequate interpretative schemes (both general and of synthesis); nevertheless, under chaos, managers are forced to make decisions by instinct, flair and categoric values and they are unable to foresee what will happen (Figure 3).

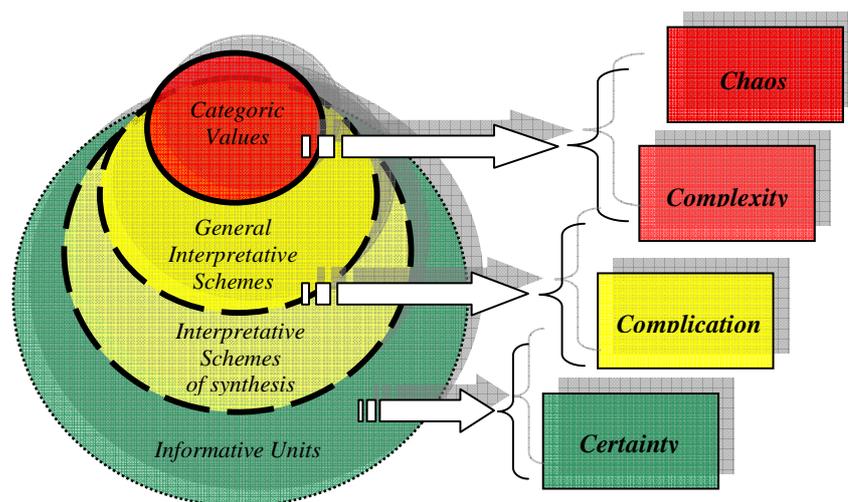


Figure 3 – *Informative Variety of viable systems and decision making contexts.* Source: Our elaboration from Barile, 2009.

Obviously, in order to avoid to persist and act under conditions of complexity or chaos, individuals and firms have to increase their own *Informative Variety* by improving and enhancing their cognitive resources and developing adequate interpretative schemes, through interpersonal and inter-systemic networks which, starting from specific relational conditions defined as consonance by the (*vSA*), foster the development of knowledge synergies.

However, not all the environmental changes are understandable and foreseeable: indeed, complexity usually means uncertainty and ungovernability especially in the case of systems with not well-defined borders and characterized by latent forces and high sensitivity to internal and external changes. In other words, the dynamic complexity of internal and external contexts makes unforeseeable and ungovernable for firms the most of future changes and of their effects

on market and competition as well as on the nature and typology of the resources of competitive advantage.

It follows that complexity increases uncertainty and causal ambiguity with regard to the resources, capacities and competences the firm should have in order to get and exploit the opportunities that emerge over time.

To increase his/her Information Variety through the creation of new knowledge, decision-maker can follow two approaches or paths, based on two main elements that are relevant for firm competitiveness: firstly, the awareness of its own background of knowledge and competences and the capacity for managing it in order to provide flexible and innovative solutions to emerging problems (furthermore, the continuous combination and re-combination of knowledge supports value creation through the multiplication of its intended uses – Sherif and Xing, 2006); secondly, the continuous exploration of complexity and the learning of new knowledge (Figure 4).

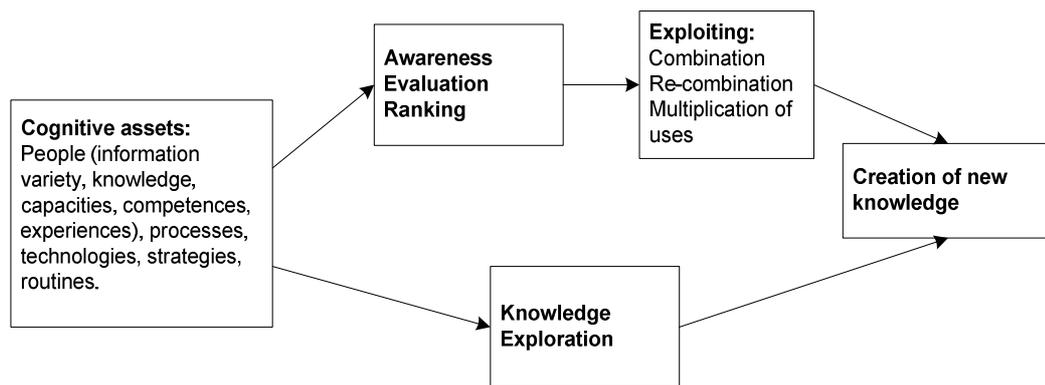


Figure 4 – The process of knowledge creation within a CAS, Source: Our elaboration.

In other words, beginning from an initial cognitive background (that is people, processes, products, technologies, routines, strategies, etc.) the firm government should be aware about it in order to adequately exploit it through the multiplication of its uses but, at the same time, must increase and improve it by exploring the environment and starting a process of combination and re-combination of new and old knowledge; in this way, he/she will be able to create new knowledge and implement innovative solutions to contingent problems.

Therefore, the firm government has to explore the variety and variability of the competitive context by learning information and knowledge, in order to improve his/her capacity for understanding and managing the complexity and induce the evolution of the system by means of adequate organizational, strategic and operative solutions. By increasing internal variety, the system becomes also able to improve its creativity and the capacity for learning and elaborating information and knowledge, in the way of changing decision-making problems (Barile, 2009) in problem solving (Carley, 2001).

Hence, the main function of entrepreneurship is not only the re-combination of previous knowledge (Poincarè, 1905), but also the creation of new knowledge through the exploration of the unknown.

In such a view, the entrepreneur, as firm government, must make a cognitive effort of monitoring and exploring the environment in order to foresee and define the knowledge, competences and capacities necessary to achieve the entrepreneurial goals.

Nevertheless, the context complexity and dynamism, together with limited rationality and asymmetric information, make difficult for deciders to identify only one set of resources and capacities to achieve long term competitive advantages.

For these reasons, competition is taken as a continuous developing process, based on different cognitive schemes, which are strictly interconnected and interdependent each other, and on different evaluations of phenomena, which allow to implement structural and systemic solutions and to develop new strategic logics for increasing firm evolutionary capacity (Sanchez, 1997).

For firm survival and development under complexity, the entrepreneur must create an “*open-system design*” in order to ensure strategic flexibility. The flexibility enables firms to access and coordinate continuous flows of endogenous and exogenous knowledge, useful to implement the innovative solutions necessary for the satisfactions of supra-systems expectations. Such an evolution must follow the widespread of a culture of networking: the network has to be seen as a tool to garrison the value chain.

FINDINGS

Decision-making of district SMEs under complexity: the case studies of the districts of Santa Croce sull'Arno and Solofra

For a long time, many studies have tried to identify an appropriate definition of industrial district, capable of enclosing all the elements and the main features of this new organizing paradigm (Iannuzzi, 2007). The most complete one appears to be that of Becattini – considered the Italian precursor of the Theory of Industrial Districts – who, following the Marshall's line of thought, defined a district as a socio-territorial entity, characterized by the contemporary presence of both a people community and a population of industrial enterprises, within the same territorial area (Becattini, 2000).

In such a way, the scholar brings the local context out, as the place where external economies arise. According to Marshall, external economies have been the main success factors of this form of industrial organization of production, which come from values, tacit knowledge, background, traditions and culture which are embedded in the territory (Marshall, 1920). For these reasons, they are uneasy to imitate and reproduce by competitors in other contexts (Soubeyran and Thisse, 1999).

However, the traditional view, focusing on historical, institutional, economic and socio-territorial components, considers the district as a whole, without examining the nature and the

behaviour of its companies and of its internal-external relationship system (Becattini, 1979, 1987, 2000; Brusco, 1986; Pike *et al.*, 1991).

Differently, we adopt the Viable System Approach to emphasise the relevance of single entrepreneurs, of their companies (even if small sized) and of their social and economic relationships (Emery, 1969; Golinelli, 2000, 2005; Golinelli, C. M., 2002; Barile, 2006). In other words, we cannot focus our analysis only on the “forest” as a whole, but on the coming up and growing of its “trees” (Baccarani and Golinelli, 1993, 22-23; Iannuzzi and Berardi, 2008).

The (VSA) enables us to observe and examine the structure and the dynamics of a district as an ordered system, whose components are analysed with regard to the whole system and to its internal and external interactions, bringing the focus from the parts to the whole system (Mastroberardino, 2002; Saviano, 2003; Barile and Saviano, 2008).

Such elements contribute also to define the degree of completion of the district, which therefore may be (Barile *et al.*, 2008):

1. *embryonic district system*: when there are neither cooperation among firms nor any collective government, rather there are several decision-making centres, as many as the systemic entities within the district;
2. *ending district system*, when there is a collective government – usually a consortium of firms or an institutional actor –, yet it is not able to address the entrepreneurial decisions of all district firms;
3. *complete district system*, when there are both a common finality among firms and a collective government – usually a leading firm – which manages the competitive dynamics of the whole system

However, only few of them can be considered as complete systems (it is the case of Prato, Varese, Montebelluna, Sassuolo, Santa Croce sull’Arno, etc.) or ending systems (for instance, Manzano, specialized in the production of chairs; Grandinetti, 1999), able to compete successfully in global markets, thanks to their SMEs which are able to achieve higher efficiency, as well as bigger companies, still keeping strategic and operative flexibility; differently, the most are embryonic districts, that is systems without a common head capable of promoting and managing change and innovativeness (for instance, the district of Solofra – Iannuzzi, 2007).

Furthermore, empirical evidences demonstrate that in many Italian district systems there are small firms governed by different kinds of entrepreneurs: on one hand, there are *production-oriented entrepreneurs*, focused on internal management and concerned in product innovation; on the other hand, there are *flexible entrepreneurs*, able to adjust themselves and therefore to introduce external innovations, who aim at surviving by developing financial, market and marketing competences (Iannuzzi and Berardi, 2008a).

Usually, both the entrepreneurs are also the administrators of their own companies. This often determines negative consequences in terms of contrasts between personal and organizational interests, “whereby what is expected from individuals, in terms of family principles, often violates what is expected from them according to business principles” (Lansberg, 1983, 40). Indeed, a family business is characterized, not only by strong cohesion, tradition, good reputation, joint liability and trust, but also by self-centredness, self-opinion,

conventionality, undervaluation of critical signs, favouritisms, disagreements, low internal competition, lack of a strategic planning, short run perspective and incapacity to analyse and comprehend the environment and context complexity (Tagiuri and Davis, 1996).

In fact, the comparison of performance of two Italian industrial districts, specialized in the industry of tanning, that is Santa Croce sull'Arno configurable as complete viable system, and Solofra, definable as embryonic system, it emerges the lower degree of development of the latter and the less competitiveness of its companies which tend to compete individually also within the international markets.

Var. % 2006/08	Observations	Average Value
Sales	184	+12%
Added value	184	+6%
Export	182	+11%
Earnings Before Interest, Taxes, Depreciation and Amortization (Ebitda)	184	6,0%
ROI	184	6,9%
ROE	184	3,0%

Table 1 – The district of Santa Croce sull'Arno. Source: Our elaboration.

Var. % 2006/08	Observations	Average Value
Sales	41	-4,%
Added value	41	+10,%
Export	41	-20%
Earnings Before Interest, Taxes, Depreciation and Amortization (Ebitda)	41	3,8%
ROI	41	2,9%
ROE	41	0,6%

Table 2 – The district of Solofra. Source: Our elaboration.

The greatest concerns are represented by the value of exports, that, however, is offset by the increase of domestic sales, and particularly by the low level of ROI that, compared with the average of sector and with the cost of financial debts (average rate of passive interest), is a significant measure of firms profitability: for the average of analysed firms, the ROI is less than 3% and confirms an unstable condition.

This weakness is also confirmed by the low level of ROE (0,6% on average - Metallo, 2007).

For supporting the competitiveness of Solofra district SMEs, it is necessary the awareness of their entrepreneurs that the real competitors are located not within the local territorial system, but outside the district and in particular in the international context where Chinese companies are becoming more and more strong. In this perspective, district SMEs should build more stable

and structured networks in order to benefit from economies of scales (for example they could create a consortium to acquire raw materials), brand advantages (with a common brand); financial resources; and knowledge economies to simplify the decision-making. Moreover, the competition among firms is centred on the access to the critical resources of information, knowledge, skills and creativity, and not merely on the acquisition of positions of leadership on the markets. In fact, the firms which incorporate the "best" cognitive resources will be able to compete successfully on final markets and act under conditions of certainty or complication: in such a way, they will be able to prevent irrational and instinctive decisions which could prove to be wrong.

Furthermore, if, on one hand, multi entrepreneurial systems are very widespread on the national territory and have proved to be able to compete in the traditional industries focusing on the tacit-aesthetic component of the production (fashion, creativity, design, etc.), on the other, this kind of entrepreneurship does not appear to be able to develop knowledge-based assets and functions, such as R&D, patents, training, learning, intellectual capital. This has led district SMEs on an inertial path of growth that, because it is based on the vain confidence that firms can survive and evolve without undertaking investments and risks, has proved to be not sufficient to face with the international competition effectively.

Italian district SMEs should become able to exploit their own distinctive capacities through the creation of stable networks.

The role of knowledge in the decision-making of district SMEs

The hypothesis of complexity of the economic system and of many entrepreneurial decisions requires greater attention by literature and decision-makers on the importance of decision process, and on the cognitive components of entrepreneurial resources (Gatti, 2005).

In this context, the *Knowledge-based View of the firm*, which takes the knowledge as the most critical resource that allows the firms to create value, and to survive and develop in global competition, acquires relevance (Spender and Grant, 2008; Tardivo, 2008). The firm loses its materiality to turn itself into a complex of personal and collective skills and knowledge, which grow along the channels of networks and are necessary to uphold the competition (Prahalad and Hamel, 1990). This consideration applies even more in the case of district SMEs that, generally, manifest a low budget of tangible assets and whose the individual knowledge is the main resource of the entrepreneur, deriving from his/her experience and work-practice (Lorenzoni, 2003).

This is also a contextualized resource which is not easy to imitate and replicate in other contexts and, rarely, the mediation with the language is full and effective (Kakkonen, 2008). Usually, people and firms operate under complexity and use implicit and informal forms of knowledge. This kind of knowledge cannot be easily separated from the context where it has been generated and socialized, rather usually it remains an intuitive and unconscious ability of people. The difficulty to codify the most of tacit knowledge is due to its nature of embedded resource (Lundvall, 1996).

The two different but strictly related way to learn and develop new knowledge, that is individual learning and collective (or relational) learning, to be effective require specific relational conditions (these will be analysed forward).

In particular, individual learning derives from past experience, competences and capacities of individuals, who take part to the firm production, and it is made by trial and error or through forms of *learning by doing* and *by using*. It follows that district tacit knowledge can be transferred only jointly to the person who holds it and through socialization processes (Nonaka, 1995).

Also the relational learning is supported by the sharing of embedded values, interpretative schemes, codes, language and culture which support information flows and tacit knowledge socialization, but it derives from the relationships among district firms (*learning by interfirm relationship*), which allow *cross fertilization* processes and the creation of new knowledge. In this case, learning depends on face-to-face interactions: each firm component, by experience and practice, tends to develop specific competences and knowledge, which are specialized and complementary to those of other district firms, in the way of starting a continuous and intense relational activity; district firms can also interact each other to create conditions of inter-systemic resonance for the sequential conjunction of processes, or to the achievement of economies of scale.

This entails exchanges of information, experience and, therefore, the production of new knowledge. However, we can also observe various forms of integration with the social system, which induce the formation of a cognitive relational space and facilitate the movement of knowledge and forms of *learning by interacting*, *collective learning* and the building of an innovative context.

Referring to the relationships with district supra-systems: various and relevant researches emphasize the difficulty for several district SMEs to develop stable relationships with external contexts, because they are unable to codify the most of their own tacit knowledge, to decode external knowledge, and to manage formal mechanisms of interactions (Grandinetti and Rullani, 1994). Therefore, the relations with external systems are generally trading and concern the exchange of market information. However, if on one hand, district SMEs are able to perceive and meet the demand in a flexible way, on the other hand, they are often unable to create new markets and usually adopt strategies of benchmarking and of learning by external adapting. It follows that district learning is not the mere summation of district individual learnings, rather it is the result of the synergic interactions among district actors, territory and external entities.

Hence, district firms share a common background of tacit knowledge, that is unconsciously socialized through two main cognitive networks: the entrepreneurial network and the institutional network (Geroski, 1995; Bell, 2005). In the first, firms share tacit knowledge through informal and confidential relationships (Nonaka and Takeuchi, 1997); in the second, they exchange formal and codified knowledge concerning trade and market standings. (Rullani, 2004).

In such a way, individuals, firms and networks are connected by social mechanisms, and circular and continuous flows of learning which are influenced by the contexts and concur to the creation of new knowledge (Figure 5).

The learning, internalization and combination of external knowledge with its own tacit knowledge support firm creativity and innovation.

In such a way, the firm assumes an evolutionary nature and bases its competitiveness on its cognitive resources and on the capacity to create new knowledge (Zaheer and Bell, 2005, Belussi and Pilotti, 2000).

In such a perspective, the real engine of the economy is the reproducible knowledge, which can be transferred and spread among the different systems of firms and enables firms to achieve economies of knowledge and to create value and generate profits.

Either the pre-modern economy, and the fordism, and the current networking capitalism have placed their bases on such a knowledge, but they have used different approaches to the environmental complexity that is necessary to create new knowledge (Rullani, 2008).

Indeed, the pre-modern economy tried to eliminate complexity through the standardization of processes and products, and the deterministic prevision of events.

Differently, the fordism, giving attention to contingencies, contexts, people and firms – these latest taken as unique, different and path-dependent systems (according to the *resource-based view*) – aims at monitoring and adjusting the complexity by means of the market power and negotiations with the various supra-systems.

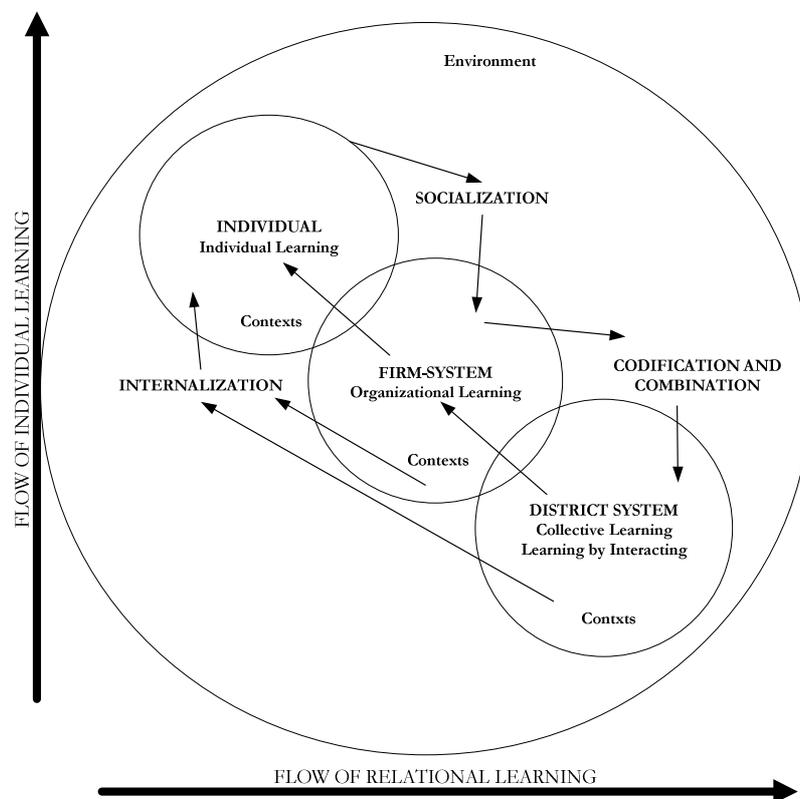


Figure 5 – Individual and relational learning within the district system. Source: Our elaboration.

Nevertheless, the systematic restraint of complexity in terms of demand prevision, vertical integration, etc., is not easy to support within the modern competition, based on new technologies, characterised by deep change, variety and variability, and where the time is fundamental for competition and for exploiting worthy innovation and knowledge. In other words, the fordism leads the company in a position of relative immobility.

Vice versa, there is a need for a different approach to the complexity that must not be controlled and reduced by the mere exploitation of the known, rather it must be considered as an endless source of new knowledge and must be explored and managed through a co-evolutionary path (Rullani, 1997).

The challenge is to create a context where firms can learn, socialize, share and use knowledge, that is worthy and difficult to imitate, quickly and costless (Nonaka and Nishiguchi, 2001). In particular, the district SMEs, assumed as *Complex Adaptive Systems* embedded in complex contexts, must acquire specialized knowledge and combine the same knowledge in a synergic and innovative way, through *cross-fertilization* processes with previous knowledge. In other words, such an evolutionary competitive context, the globalization and the technology revolution make the firm knowledge and learning as the main competitive factors in order to survive and evolve over time.

District SMEs must evolve from *path dependent* systems, which use and exploit the knowledge they already hold by means of mechanisms of elaboration of previous experiences and of *conceptual combination*, to innovative systems which, recovering their history and tradition and exploiting the uniqueness, explore the new opportunities and knowledge through collaborative interaction with other systemic entities.

In such a view, the patterns of knowledge that are relevant for district SMEs competitiveness are both, individual knowledge and collective knowledge.

The district system as a context to govern the complexity by means of knowledge

The idea of the environmental complexity and turbulence emphasises the relevance of the firm decision-making, especially for SMEs which are usually characterised by an individual government, where the entrepreneur plays the roles of owner and administrator even if he/she does not have enough ability and specialised capacities. Differently, strategic and operational decisions for long term survival of SMEs require adequate cognitive capacities.

The complexity and the rapid evolution of the competitive context, and the scarcity of human, financial and cognitive resources emphasize the necessity for SMEs to join network systems, typified by forms of vertical and horizontal cooperation among firms, in accordance with the general interpretative scheme of cooperation and competition (Barile, 2009).

The complexity imposes the continuous environmental monitoring because not only the supra-systems expectations, but also the structure of the firm context can change significantly, and requires continuous structural and behavioural adjustments.

In such a view, also the small district entrepreneurs must change their strategies and organizational models and finally their entrepreneurial mentality.

Indeed, the complexity and interaction among several subjective and systemic components make difficult for firms to anticipate context evolutions and to identify the opportunities and threats which can emerge over time. This entails the necessity for a continuous monitoring of external dynamics in order to perceive and interpret potential change signs. Hence, with the definition and implementation of planned strategies, there is a need for creative and emerging decisions and actions.

Furthermore, usually an individual entrepreneur does not hold the knowledge, competences and experience to face with the complexity of government and management. Therefore, he/she can undervalue critical elements and makes decisions by instinct, insight and personal value, rather than by a real knowledge of problems. An effective decisional process requires the active and direct participation of all the organizational members and the recruitment of qualified workers with specific and specialised competences: in such way, the system will govern the complexity and will survive and evolve through self-organization, learning, creativity and flexibility.

Because of the hyper-competition and continuous environmental change, entrepreneurs need to have the access to cooperative inter-systemic networks, in order to induce the completion of the district system and foster its effectiveness in exploring the complexity and learning new knowledge. Differently, the firms and the district risk to not survive.

The needed cultural change is linked to the access to network systems: the knowledge inter-systemic relationships allow small firms to implement processes of research and development and of complexity exploration (Lindsay, 2005). They also allow to achieve flexibility and the capacity for adjusting to environmental change through processes of knowledge socialization (Volberda, 1996).

Indeed, the network can be defined as the tool whereby also small firms can explore and govern the complexity in the perspective of knowledge and value creation, and opportunity exploitation.

By taking the point of view of the single firm, the district system can be represented as a structured and dynamic *supra-systemic context*, where routine procedures and rules are clearly defined thanks to a long sedimentation process of inter-systemic relationships. In this sense, a district SME has to be able to exploit the district as an opportunity to profit by common structures, relations and embedded knowledge.

Hence, it is necessary to implement a knowledge approach for the government of district firms. At the moment they compete within the so called Knowledge Era, but their government and managerial systems are typical of the Industrial Economy. Moreover, they are facing with growing uncertainty and complexity, which often go beyond the information assets and the consolidated interpretative schemes, even until the chaos. In these cases, entrepreneurs are forced to make decisions by instinct and values, that, for this, may be wrong.

In this perspective, learning and knowledge can be assumed as firm responses to the complexity and environmental change: in fact, the firm competitiveness depends on its capacity for developing new knowledge by means of the combination and re-combination of network variety.

In such a view, the district becomes a chance for SMEs to govern the complexity in order to simplify the cognitive process for understanding complicated problems and to support the decision-making under complexity also thanks to strong and embedded categoric values which help to orient the choices even when there is a lack of both informative units and interpretative schemes.

But when do such opportunities emerge?

According to the (VSA), the case studies stress that the *degree of completion* of the district system is essential to exploit the economic-structural potentialities linked to the development of synergic and worthy interactions. Indeed, for exploiting district opportunities it is necessary to develop conditions of *consonance* and *resonance* among the firms and the other district entities. The consonance is conceived as the degree of integration among structures, i.e. their potential structural compatibility for exchange. It is the ability to relate with the external world in order to bring about the exchange of resources. The resonance is the realisation of such a potential compatibility among parts (consonance) through operative collaboration in order to reach a common goal. It is a sort of syntony and coinciding of aims, and configures the capacity of the system for creating synergies with the other systems with the same goal (Golinelli, 2005).

Therefore, the network needs to achieve consonance at several levels: the consonance between the district firm and the district as supra-system; and the consonance between the complete district system and the external context (Figure 6).

In the figure 6, we can emphasise the *recursion* (a VSA key concept) of the connections among the different levels of the district system. Within the recursive scheme, the district context is perceived as an external entity, by taking the view point of the district firms, or as an internal one, by assuming the view point of the whole district system. In such a perspective, what represents a form of external *exploration* of new knowledge for a district firm, becomes a sort of internal *exploitation* of knowledge for the district (March, 1991). A recursive relation between internal and external context, and hence between exploration and exploitation of knowledge, arises by means of the district.

The structure and the systemic functioning of the district configure its degree of completion, as *embryonic*, *ending* or *complete* system. In particular, the consonance of the relationships will define the degree of completion of the district that will work as a whole system and will mediate the relationships between the district firm and the environment by developing synergies of complexity government.

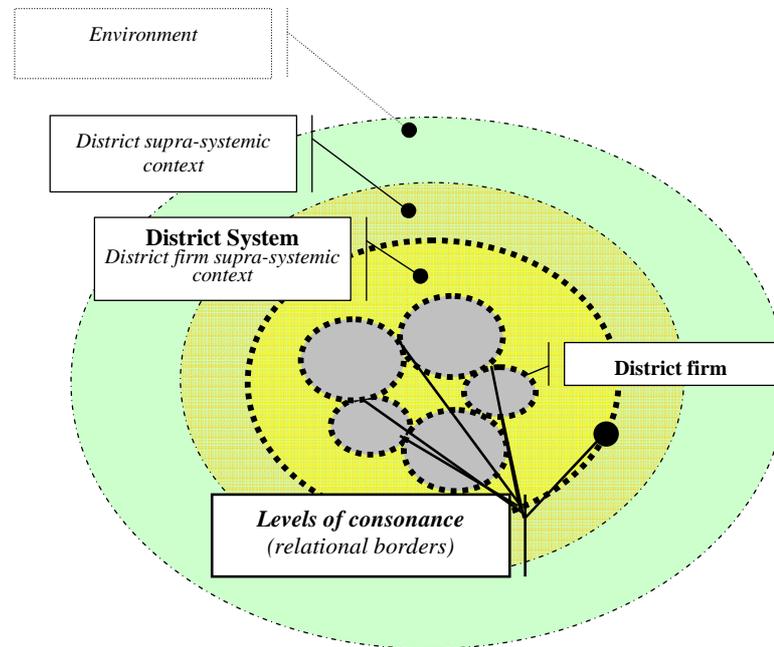


Figure 6 – The levels of consonance among district systemic entities. Source: Our elaboration.

The degree of completion of the district influences the opportunities to govern the complexity. By competing *through* the district system, individual firms will reduce their degree of autonomy on final markets, but they will gain the capacity and the power as a complete network system, which can face with the challenges of global competition effectively.

The district system with growing inter-systemic consonance and resonance enables firms to focus on *core business* and achieve economies of specialization, flexibility and adaptability, by sharing information and knowledge and avoiding the negative effects of both excessive integration and standardization (which block innovation), and a limited coordination (which leads to chaos). In fact, cooperation supports informal exchanges of information and tacit knowledge which in turn foster the creation of new knowledge and innovation.

How do the conditions necessary for the completion of a district arise?

As observed before, according to the Information Variety model, viable systems take decisions and act within their own context on the basis of their knowledge background which is composed by information units, interpretative schemes, general and of synthesis, and categoric values. These three variables can influence the dynamics of the cognitive processes which characterize the interaction among the viable systemic entities. During the interactive processes the informative units can be easily transferred and socialized, the interpretative schemes (of synthesis or general) are fundamental to give an order and a meaning to information, and the categoric values are more difficult to influence and change over time because they resist change.

Determining the level of consonance, the action of the categoric values is more significant in comparison to rational interpretative schemes and informative units. The greatest level of consonance between the related entities derives from shared categoric values (Figure 7).

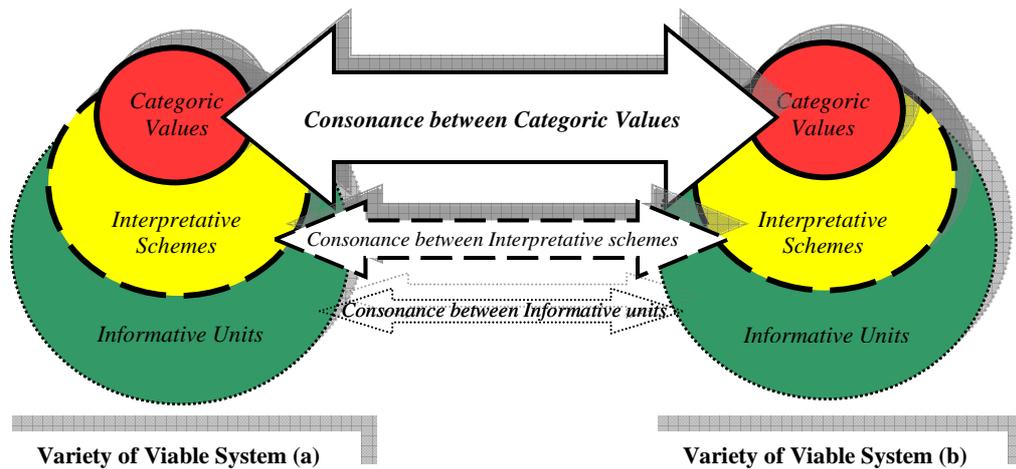


Figure 7 – The Informative Variety Consonance Model. Source: Our elaboration from Barile, 2009.

Hence, the consonance depends firstly on the categoric values and interpretative schemes. The consonance and resonance act as factors of change of the informative varieties that interact. In particular, when two informative varieties interact each other, firstly they perceive the information units, then they see them through the interpretative schemes and finally they accept or refuse them depending on the resistance action of the categoric values (Figure 8).

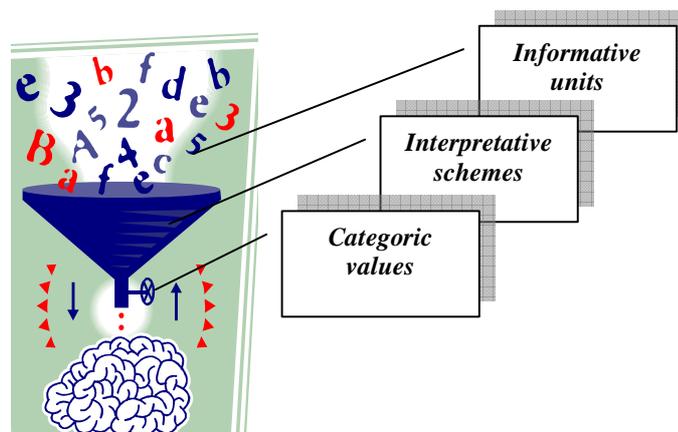


Figure 8 – The action of the Informative Variety factors in the cognitive process. Source: Our elaboration.

The level of consonance among the district systemic entities defines the degree of completion of the district. *Complete district systems*, characterized by strong inter-systemic consonance and intense and profitable relationships, enable firms to manage complexity and support their trading and internationalization through the socialization of tacit and codified knowledge with the main supra-systems (institutional supra-system, financial supra-systems, consumption supra-system etc.). Differently, in the case of *embryonic district systems* there is a prevalence of occasional relationships and speculation purposes (in this case, the speculation is usually the main categoric value, for instance for the access to public financing).

The case of the embryonic district system of Solofra shows that the main problem for many SMEs concerns the categoric values and the self reference of the entrepreneur, owner and government, who tends to control the firm directly and to use informal forms of communication. While informality can be considered a key factor for SMEs competitiveness, the lack of formal systems and procedures makes difficult the learning and spreading of new knowledge, and the access to wide network systems. In fact, small firms base their competitiveness on experience, empirical knowledge and know-how. This, on one hand, can be a source of competitive advantages in terms of entrepreneurship and creativity, on the other, can produce rigidity and decline.

Many small entrepreneurs miss skills and knowledge to face with the new challenge of competition and to adopt the most modern models and technologies to manage and govern their firms. Furthermore, they have developed a concept of high quality which is too costly: to reduce cost they should industrialize the quality, moving from the empirical knowledge to the scientific production (Varaldo, 1990).

The centralization of decision-making shapes a government based on the cognitive background (the Informative Variety) of the entrepreneur, limited to his/her scarce information and interpretative schemes and conditioned by his/her categoric values.

However, the district system, assumed as a socio-territorial entity, characterized by the contemporary presence of both a people community and a population of industrial enterprises into the same territorial area, which fosters continuous and intense economic, human, social, religious, institutional and technical relationships, supports the spreading of a common and homogeneous system of values which both can expunge opportunistic behaviour and encourages inter-systemic convergence, and simplifies and improves the firms' government by means of more intense and lasting information flows and worthy knowledge exchanges. In such a way, district firms become able to compete effectively also under condition of complexity.

In the case of embryonic systems, such as the district system of Solofra, the prevalence of the categoric values of speculation, short-term profit, self reference, individualism and maximization of self-interest leads to undervalue the opportunities of the district system and to sub-optimize performance.

For long-period survival of district SMEs, entrepreneurs must change mentality and develop adequate mechanisms to explore, share and exploit complexity and new knowledge (Jones and Macpherson, 2006).

The cultural change must involve the entrepreneurs and the other systemic actors (Golinelli, 2005) who must foster the spread of categoric values, such as cooperation, ethics, socialization of knowledge etc.

The common values, finalities and objectives induce a widespread sense of belonging to the district system and foster the homogeneity of categoric values which will merge each other and resist to external change which undermines the viable survival of the system through eventual opportunist and speculative behaviours. Complete systems can expunge dissonant entities.

Obviously, the high consonance within the district supports also the research of external consonance with the relevant supra-systems.

CONCLUSIONS AND PRACTICAL IMPLICATIONS

Assuming the point of view of the district SMEs, the pursuit of self interest and profit, which has always characterized every firm, should be achieved by developing consonant relationships with other district SMEs in order to ensure long term survival and performance for all the district system and its firms.

In other words, the lack of cognitive, managerial and financial resources imposes to small firms the access to more resonant, stable and wide network systems. In such a way, they could benefit from common knowledge assets and develop more specialised and innovative capacities and competences (for example, by establishing or participating in collective training programmes, recruiting qualified workers and strengthening the links with local universities and research centres).

District entrepreneurs must overcome the traditional family management which gives priority to the personal involvement and commitment in pursuit of specific objectives, and assume a government focused on strategic flexibility and complexity exploration, giving attention to the strength of environmental weak signs (Sanchez, 1993).

Hence, not all the relations generate value for firms and the network: there is a need for consonance among the systemic entities, in terms of common finality and objectives, codes and interpretative schemes, and language and values. Moreover, the resources and competences they hold must be heterogeneous and complementary, and there is a need for mutual trust to stabilise the relation (Piciocchi *et al.*, 2003). Nevertheless, each relation has to be embodied and contextualised into a wider network system which creates new opportunities and amplifies benefits and advantages for firms, starting a strategy of creative and synergic combination of Informative Varieties (Piciocchi *et al.*, 2009).

In particular, for surviving under complexity and developing capacities and competences to enhance learning, creativity and flexibility, district SMEs, firstly, must increase their internal informative variety through the acquisition of heterogeneous knowledge and competences, without trying to simplify and rationalise their structures and strategies. Secondly, they should homogenize also their own informative variety, in order to share the same interpretative schemes and categoric values.

The categoric values are very effective in the case of complete district systems where the consonance among firms emerges spontaneously thanks to the homogeneity of social and entrepreneurial values.

In this way, we can understand and explain the deep meaning of industrial atmosphere (Marshall, 1919) that can be shared only within the complete district systems.

The district government plays the essential role of guiding the evolution of the whole system and ensure its survival.

Furthermore, the nature of the district as emerging system, generated by spontaneous bottom-up processes of sedimentation and interaction among the territory, the social network and the population of firms, makes the district a significant example of complete system, even when it apparently misses a common government. Indeed, it is characterised by advanced forms of self-organization and self-government, based on consonance and resonance, and on the spontaneous sharing of categoric values and interpretative schemes.

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COMMUNICATIVE IDENTITIES AND BRAND PLACEMENT

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This research paper, examines the adequacy of understanding of the definition, perceptions, theoretical foundations of Brand Placement (BP) and establishes the need for a new definition; concludes that Brand Placement is an innovation with distinct values; identifies the communicative identities as used in Indian Movies-one of the largest creative industries in the world; introduces a new classification of inclusion of identities in creative content; identifies linkage to certain dominant product categories and brand placement and proposes a definition with 2 intensities, four superstructure, an outcome and two perspectives:

Brand Placement, an innovation in marketing communication with distinct values, is the paid inclusion of communicative brand identities, via management of intensities, in creative content of any media and is an audience driven strategic communication process, managed by stakeholders for an outcome.

Methodology - The methodology employed was field research to find out the general perspectives of practitioners in India on the comparative merits and demerits of brand placement versus TV Commercial and data collected by personal interview from randomly selected 31 practitioners with a structured questionnaire on a 7 point scale. A content analysis of 100 brand placements from randomly chosen movies which served as reliable secondary source of data was carried out to study the type of brand identities used in Indian movies using the model of four communicative identities namely visual, verbal, audio and thematic

Findings - The empirical research rejected the null hypothesis "there is no difference between brand placement and TV commercial"; found 11 Distinct Values of Brand Placement based on 't' results and concluded that BP is an innovation with the salient distinct values as 4 Cs – Captive Audience, Clutter Free, Celebrity Cost Advantage and Cost Effectiveness based on factor analysis and ranking on average score. Through content analysis classified placement of brand identities into two intensities of inclusion namely Silent Visual Placement and Interactive Inclusion and identified the most popular intensity types as interactive inclusion. This paper revealed that five brands were placed per movie and found 4 dominant product categories in BP namely food and beverage, fashion, media and entertainment, and automobile and two wheelers.

Limitation - The limitation of the study was however the small sample yet significant considering that BP in India is in its nascent stage.

Originality Value - This paper will give both the practitioners and academia a comprehensive understanding of BP in India and enable them to take well-informed decisions to promote practice and research.

RESEARCH ISSUES

- Is the current understanding of definitions of Brand Placement adequate?
- Is Brand Placement an innovation? What type?
- What brand identities are used in movies? How?

- Are there any dominant product categories in BP?

RESEARCH ON BRAND PLACEMENT (BP) 1982 – 2009

In the year 1982, a movie titled ET: “The Extra Terrestrial” was launched.

In this movie, a brand Reese’s Pieces was included.

This inclusion caused the sale of the Candy to jump 65% (Karrh, 1998).

The global advertising industry recognized this as the birth of Product Placement.

Researchers observed a number of product placements. James Bond making secret call on Ericsson mobile phone (1987) in the movie Tomorrow Never Dies, made Ericsson brand benefit by enhanced visibility and gain in market share (Ziemme 1988).

Researchers also recognized the value of product placement as “clutter and ads of competitors are cut off when you integrate the brand story with the main story (Gay, 1988). The scope of product placement as a promising advertising way was confirmed (Buss 1998, Farhi 1998 and Reed 1989). Since then Product Placement has grown in application and has become an industry attracting researchers, academia and practitioners. Product placements in Movies and TVs maximized the interests for both film producers and advertisers.

By 1991 in USA, a group of west coast based placement agents formed an American industry group-the Entertainment Resources and Marketing Association (ERMA) to highlight the practice. UK followed in 1996, with the formation of Entertainment Marketing Association (Curtis 1996).

Nebenzahl and Seunda (1993), brought to the collection of knowledge that consumer beliefs towards product placement activities have been found to influence their acceptance in general and product placement has been more organized to enhance product communications.

In 1999 BMW invested \$20 million for Z3 roadster in James Bond Film Golden Eye and the brand had prominent exposures in film, trailers and TV ads. This attracted the attention from academics (Einstein 1997, Babin & Carder 1996, Decorme and Reid 1999, Gupta and Goud 1997, Karrh 1998, Ong and Meri 1994, Goud Gupta and Grabner and Krauter 2000). Brands, Mokie and Lexus, were placed in Spielberg’s film Minority Report and promoted through interactive bill boards. The advertiser reportedly paid \$5 million to \$7 million each for the placement (Friedman 2002). It was predicted that Advertising Agencies and Public Relations firms may become involved in negotiations for their clients (Pardun and Mckee 2000) and product placement will become an important revenue source for broadcast television network (Schneider 2002). The practitioners sought more prominent roles for their brands in films (Dorio 1999, McCarthy 2000) and in TV shows (Elliott 2002, Friedman 2001, Avoni 2007). In the beginning of 2000 Coca-Cola, BMW and Ford adopted a role of programme producers themselves to protect the brand interests and to give themselves more opportunity to present the brand. They gained control of the entire programme (Brown 2002 and Wells 2001). The concept of product placement began to be practiced worldwide.

RESEARCH ON CLASSIFICATION OF BRAND PLACEMENT (BP)

A number of researchers studied the effectiveness of product placement and in the process classified the levels of product placements in movies and TV programmes

Shapiro (1993) classified the product placement in movies in to three types:

1. Product placement that provides **clear visibility** with product and brand name shown.
2. Product placement that has a **spoken reference**
3. Product placement that provides **hands on use and mentioned by a main character**.

D'Astous and Seguin (1998) identified three types:

1. **Implicit** product placement: The brand name is not referred to in the movie.
2. **Integrated Explicit:** The brand is within the context of the story and is expressed in a way that its attributes are explicitly demonstrated.
3. **Nonintegrated Explicit:** The brand is explicitly expressed outside the context of the story.

Russel (1998) saw product placement in three dimensions:

1. **Visual:** Brand appears as a silent visual at the background
2. **Auditory:** Brand is referred to only in the audio
3. **Plot Connection:** Brand is a part of the plot

Yang and Roskos (2005) used three levels of placements in the research conducted by them.

1. **In the background:** The product shown with one of the main characters but the product not used in situation.
2. **Used by the character:** Was used by one of the main characters but not central to the story.
3. **Used as an enabler in the story:** Product played a role in the story line.

Thus different types of classifications emerged during the period 1993 to 2005 based on visibility, spoken reference, hands on use by main character, product attributes and demonstration, context and plot connection.

However we have seen from various movies in India that product placement does not come into strict classifications as mentioned above. Especially Indian movies which have a combination of story, comedy, dream-sequence, song and dance, and, fighting sequence, it is difficult to classify in the above mentioned manner. In many Indian films most of the time the song and dance, comedy, and fighting sequence may or may not be relevant to the story; but are seen as an important part of the entertainment mix. Unique to Indian Movies dream sequence and fantasy in movies are used as devices to include song and dance. Song and dance and comedy can be stand alone and television channels in India telecast song and dance, and

comedy scenes from movies in separate programmes without reference to the movie story. A simple, broad and comprehensive classification to cover all possible usages of product placements will be useful to the practitioners for ease of implementation and decide the value pricing. This will also provide for creative freedom. A new classification keeping this in mind is needed.

RESEARCH ON PRODUCT PLACEMENT DEFINITIONS

During the period of 1994 to 2005 researchers came up with various definitions. "Product placement has been defined as a paid product message aimed at influence of movie or TV audience via the planned and unobtrusive entry of a branded product" (Balasubramanian 1994). Further refinement came as "product placement or more precisely brand placement is the inclusion of a brand name, product package, merchandise within a motion picture, television show or music video"(Babin Och Carder, 1996). "Product or brand placement is the paid inclusion of branded products or brand identifiers, through audio or visual means within mass media programming" (Karrh, 1998). "Product placement of a brand or a firm in an entertainment vehicle by different means and for promotional purposes" (Prof.Tapan Panda, 2005). "Product placement is the inclusion of products – branded and/or unbranded – in mass media programmes to support content"(Scott and Craig-Lees2005). "Product placement is a co-operative effort of advertisers and creator of entertainment products in which trade marked goods are embedded into popular entertainment products in order to encourage their consumption over riding entertainment and artistic concerns (Schejeter, 2005)." "It's a form of advertisement, without disclosing it to the receiving party" said the Centre for Media and Democracy (Source Watch 2005).

INADEQUACY OF THE DEFINITIONS

Researchers and practitioners agree that brand placement is a paid inclusion. Even though in cases of barter, often used by the media brands, the same can be considered as a value transaction. But transaction alone does not provide a complete perspective especially in terms of the values of BP and its communication process.

Specific definitions like "TV", "Movie", "Entertainment Vehicle", "Mass Media Programmes" give an understanding of BP but such specificity may not be comprehensive considering the fact that BP is also noticed in internet and information media, fictions, plays and thematic environmental simulacra.

An expression like "Via planned" indicates the nature of the process. But "Unobtrusive Entry" is susceptible to perceptions of the audience and advertiser. A need for understanding the levels of implementation in a manner that practitioners will appreciate is noticed here.

In these definitions the purpose of BP is indicated to "influence the audience", "for promotional purposes" and "support content". Thus the benefits of both advertisers and producers were noticed. A broader terminology with respect to brand perspective will be better suited for a powerful concept like BP, considering that BP is a professional practice. The need for a new contemporary and comprehensive definition with a new perspective that will encapsulate the concept of BP as it is practiced to day is yet to be seen.

In summary the definitions seen so far are inadequate in terms of current brand practice and strategic perspectives, levels of brand inclusion, drivers and managers of the concept, the legs on which the idea rests and the framework that encapsulate the idea.

In order to compare the freshness and enrichment of the proposed definition of BP the researcher has identified various elements of the proposed definition and presented along with the definitions of other researchers.

	CURRENT DEFINITION ELEMENTS	PROPOSED
WHAT	Product placement, a paid product message (Balasubramanian, Tapan Panda and Scott & Craig, Lees) Brand placement, a paid inclusion (Babbin Och Carder and Karrh)	Brand Placement, an innovation in marketing communication with distinct values, a paid inclusion, an audience driven strategic communication process
WHERE	In Movie or TV programme (Balasubramanian) In Entertainment Vehicle (Tapan Panda) In Mass Media Programmes (Scott & Craig)	In content of any media
HOW	Via Planned and Unobtrusive Entry (Balasubramanian)	Via intensities of Visible Placement or Interactive Inclusion
WHO	In the understanding of BP as a concept the "by who" factor is missing	Managed by stake holders
WHY	In order to influence audience (Balasubramanian) For promotional purposes (Tapan Panda) To support content (Scott & Craig)	For an outcome

Chart 1 – Comparison of the Definitions

Is Brand Placement (BP) an innovation?

Innovation is a new approach and can be related to product, service, production process, organizational structure, people or policy.

Brand Placement is a new approach for achieving the objective of reaching the brand story to the audience through a new system. It's a change in the strategy and process. In order to understand whether BP is an innovation the researcher viewed the concept through models offered by researchers like Rogers (1993), Rafii (2002), Elaine Dundo (2002), Rebecca M. Henderson & Kim B. Clark (1990) and Clayton M. Christensen (1997)

Rogers (1983) identified relative advantage, compatibility, simplicity, trial ability, observability and involvement as attributes of an innovation. A comparison of these attributes to brand placement, identifies it as an innovation. Avoidance of clutter, entertainment, information, celebrity value, audience reach, shelf life, novelty and positioning context can be seen as relative advantages. When brand is in Internet content, interactivity is a relative advantage. Compatibility of brand placement and entertainment/information content is found to be high by research and as indicated by the growing acceptability of this concept worldwide. The simplicity of BP enables easy adoption of the idea. The possibilities of inclusion of a brand in content at different levels reduces the cognitive complexities, removes uncertainty, gives a choice of format and increases trial ability. It is possible for an advertiser to participate in the process and arrive at a richer solution through pre and postproduction discussions.

Of the three types of innovations namely radical, incremental and disruptive, BP has similarities with radical innovation as it changes the game instead of changing the rules of the game. BP enables avoidance of clutter instead of managing clutter. The director, and scriptwriter of the entertainment content express the brand story instead of the advertising professionals. Unlike the ad spot which treats every second and every frame as premium, the movie format flows with the story and dialogue without hurry for the delivery of the brand. As the benefits of BP are not just marginal or incremental, BP may not be an incremental innovation.

The growth in the practice of BP and its acceptance by audience worldwide indicates that BP may have certain unique values and may enable disruption, partly or fully, of other options like TV commercials. Disruptive innovation, a subset of innovation, is driven by multiple perspectives and distinct values and is disruptive because one cannot differentiate "signal from noise" (Christensen 1997). The real disruptions are not taken seriously until they become obvious- when it is often too late for competition. Its simple, economical and revolutionary. The disruptive innovation takes place in the space of overshot market solutions and under demanding customers.

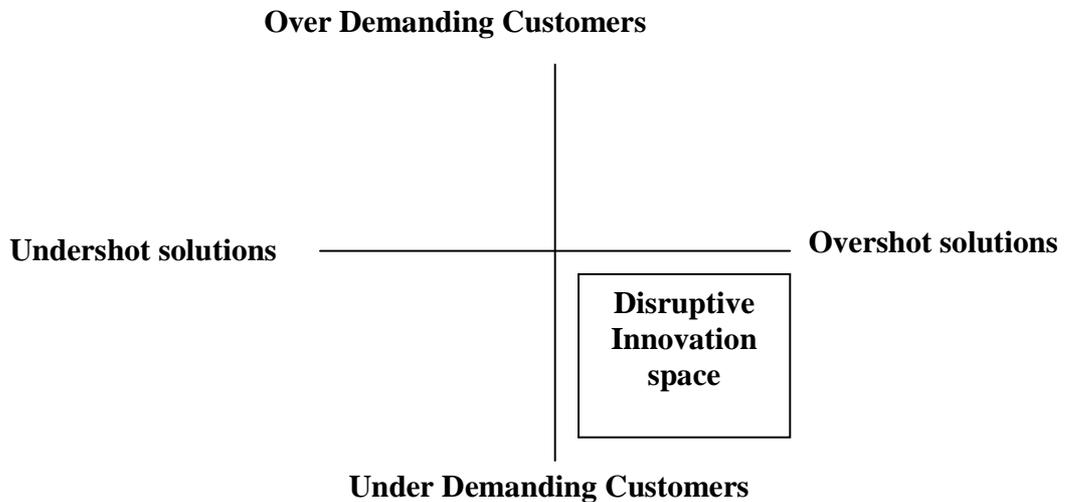


Chart II - BP in the innovation map - What is available Vs Customer Demand

In the chase for ad effectiveness in terms of reach and recall, often lead options like TV commercials may become expensive and overshot. Research also has shown that high persuasion effectiveness without effective ad recall is sub-optimal to high recall and high persuasion. Even though an objective like ad recall may sound basic, it is prime. Disruptive innovation principle is based on “good is great” and “step, don’t leap”. (Christensen 1997). Advertisers may also feel that reach and recall are good enough. Simplicity of solution can also be a convenient one as BP gives both uninterrupted entertainment to audience by removal of barriers to consumption namely ad clutter and multi level choice for placement of brand for the practitioners. BP gives access to all those customers who are locked out of market due to avoidance of ads, interruptions and information overload.

Is BP disruptive, can be studied from the perspective of lowest benefit range and the easiest point of implementation. The benefit of simple reach and visibility can be achieved from the lowest level of implementation namely silent visible placement of the product or by placement of visual and verbal brand identities in creative content. Current advertisers may not always value the high performance of TV commercial and may prefer a combination solution for greater brand recall. The ever increasing cost of TV commercial production and media, competitors not looking at the lower end solutions, inability of agencies to respond as they are locked up in their own value net work catering to their existing customers’ needs and expectations (Christensen 1997) and there by missing out on the untapped low end market needs, new trends and new customers, are potential situations for the birth and growth of disruptive innovation like BP.

With this theoretical background and clear understanding and inspired by the model developed by Rafi (2002), a hypothesis and a questionnaire was developed for examining the disruptive potential of BP against TV commercial.

Null Hypothesis: *There is no difference between brand placement and TV Commercial with respect to certain parameters.*

METHODOLOGY

I) Field research on general perspectives of practitioners in India on the comparative merits and demerits of brand placement versus TV Commercial was conducted and data collected by personal interview from randomly selected 31 practitioners (from advertising agencies, TV channels and Production House and Advertisers). A minimum of five sample per group was taken to represent all the segments of practitioners. The sample was drawn random from member list of Advertising Agencies Association of India, Indian Broadcasters Federation. The advertisers were drawn randomly from the list of organizations/ brand owners who practice BP in movies. Since the industry is in nascent stage in India it was not possible to get a larger sample for this study.

A structured questionnaire with 21 statements was used. Of 21 statements two were general perceptions and nineteen were disruptive statements. For each statement respondents indicated as to what extent one agreed or disagreed, using 7point Likert's scale. There were also two questions pertaining to the extent of current practice and growth of future practice.

The data collection with direct personal interview with a structured questionnaire was chosen to be the best method since the sample size has been only 31 cases and the industry being in the nascent stage. If the sample was larger and if the industry a mature one, one would have considered other options like telephonic interview or email questionnaire. The respondents had direct experience in brand placement, contributing to the validity and the reliability of information collected.

Testing of hypothesis

Two tail test

Alpha 0.05 default value

Test Statistic

t with $df = n-1 =$ thirty

Decision Rule

If calculated $t \geq 2.040$ reject the null hypothesis; otherwise accept

CONTENT ANALYSIS

II) The methodology of content analysis was chosen to understand the type of **communicative brand identities used in Indian movies**. The advantage of content analysis from movies is that it is a secondary source of data and rechecking is possible. Inter coder reliability was included and discrepancy if any was resolved through immediate discussion between the coders. The accuracy of the coding was 98% indicating coding clarity, training of coders and reliability of data. The movies were viewed, coded and data recorded for the type of brand identities. The model of **four Communicative identities** – Visual/Verbal/Audio/ Thematic was used

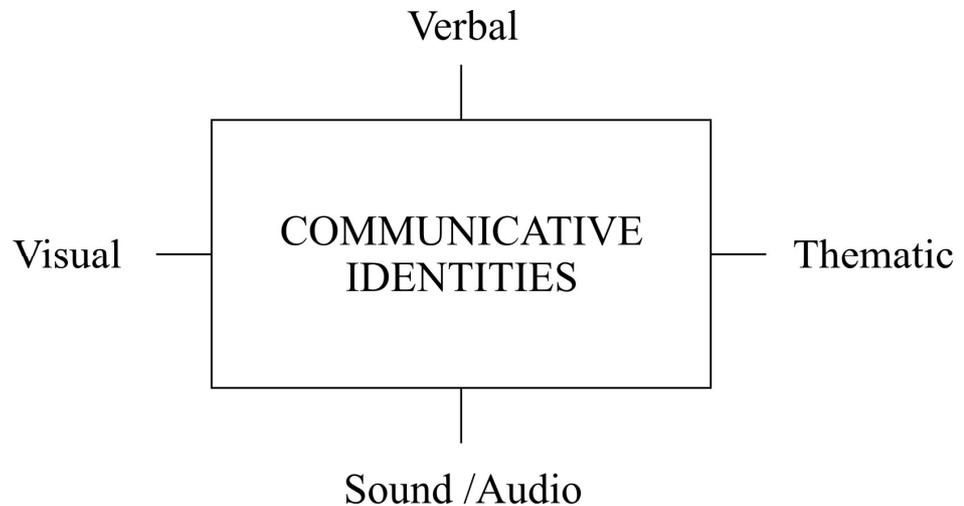


Chart III - The Four Communicative Identities

Initial pilot review indicated that there were two levels of placements namely silent visual placements and interactive placements. The silent visual placements are those where the product or brand is placed in a silent manner in the background of content. Interactive placements are those where the brand and the character or theme interacted in content. Interactive placements included four categories: interactive visual placement, verbal mention, audio and thematic. Both the levels, silent visual placements and interactive placement, were further coded to enable observation and data capture. These two levels namely silent visual placement and interactive inclusion together is labeled as **intensities** as they represent two different levels of engagements of brand. Further disruptive innovation has been explained by “signal Vs noise” by Christensen and therefore the usage of intensity to denote two different levels of strength is apt.

While doing the content analysis for the identities, the product and its category also were coded and recorded to identify linkage of BP to any dominant product category.

Sampling

Considering that brand placement is a new practice in India, a sample size of 100 was thought to be reasonable. The sample size added up to hundred from eighteen **randomly** chosen and reviewed movies out of thirty five movies randomly selected from a collection of fifty movies with brand placement.

FINDINGS AND CONCLUSIONS

This Paper

1. **Rejected the null hypothesis** “there is no difference between brand placement and TV commercial”

2. The calculated 't' 7.584 was higher than the critical value 2.040 indicating that BP is a disruptive innovation.
3. **Found eleven disruptive distinct values of Brand Placement** of the nineteen factors based on 't' results: Captive Audience, Clutter Free, Shelf Life, Celebrity Value, Cost Effective, Audience Connect, Brand Recall, Brand Recognition and beyond, Celebrity Cost Advantage, Multiple Positioning and Usage Opportunities, Promotion of Brand Values and Properties and Credibility
4. **Ranked the distinct values based on average score:** 1. Captive Audience 2. Clutter Free 3. Celebrity Cost Advantage 4. Shelf Life 5. Cost Effective 6. Brand Recall 7. Brand Recognition and beyond 7. Multiple positioning and Usage Opportunities 8. Promotion of Brand Values and Brand Properties 9. Credibility 10. Celebrity Value

<i>RANKING</i>	<i>AVERAGE SCORE</i>	<i>DISTINCT VALUE</i>
1	6.40	<i>Captive Audience</i>
2	6.19	<i>Clutter Free</i>
3	6.00	<i>Celebrity cost Advantage</i>
4	5.84	<i>Shelf life</i>
5	5.30	<i>Cost Effective</i>
6	5.26	<i>Brand Recall, Brand Recognition, beyond</i>
7	5.00	<i>Audience Connect</i>
7	5.00	<i>Multiple Positioning & Usage Opportunities</i>
8	4.94	<i>Promotion of Brand Values & Properties</i>
9	4.71	<i>Celebrity Value</i>
10	4.70	<i>Credibility</i>

Chart IV –Ranking of Distinct Values Based on Average Score

Infers (Refer Factor analysis Chart V) that the six most important salience distinct values of BP in the perception of practitioners are:

1. Captive Audience
2. Clutter Free
3. Celebrity Cost Advantage
4. Cost Effective
5. Shelf Life
6. Brand Recall, Brand Recognition & beyond.

By Factor Analysis: Through SPSS, using the Principal Component analysis, four components were extracted accounting for maximum variance of 76.583%. Fixing the factor score as minimum of 0.5 the summary component matrix was evolved as follows:

<i>Component 1 Variance 35%</i>	<i>Component 2 Variance 20%</i>	<i>Component 3 Variance 12%</i>	<i>Component 4 Variance 9%</i>
<i>Multiple Positioning & Usage Opportunities 0.752</i>	<i>Cost Effective 0.684</i>	<i>Celebrity Cost Advantage 0.584</i>	<i>Celebrity Value 0.492</i>
<i>Shelf Life 0.717</i>	<i>Clutter Free 0.569</i>	<i>Audience Connect 0.557</i>	<i>Promotion of Brand Value & Properties 0.482</i>
<i>Brand Recall, Brand Positioning & Beyond 0.680</i>	<i>Captive Audience 0.537</i>		
<i>Credibility 0.659</i>			
<i>Variance 35%</i>	<i>20%</i>	<i>12%</i>	<i>9%</i>
<i>The two items in component 4 are included even though the items have a score of less than 0.5, because they are leading in component four.</i>			

Chart V – Summary Component Matrix

The four “C”s Captive Audience, Clutter Free, Celebrity Cost Advantage and Cost Effective enjoys both high average scoring and also relatively less variance demonstrating high conviction and consensus.

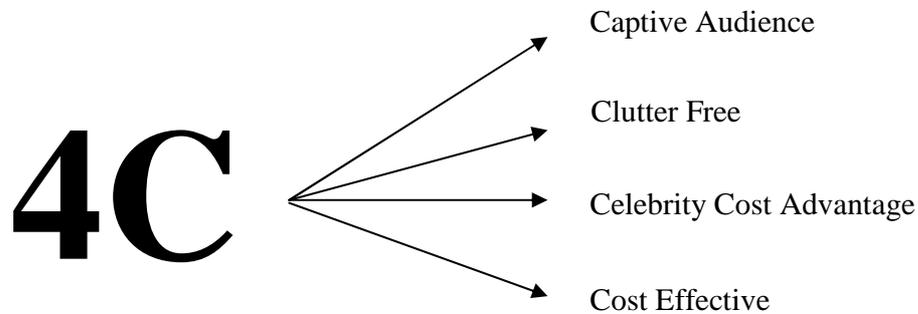


Chart VI - The 4 'C's of BP

Classified placement of brand identities in content into **two intensities** of inclusion namely

Silent Visual Placement

Interactive Inclusion

1. In the Silent Visual Placement the most dominant device to place a brand was “outdoor signage and POP”. Surprisingly “silent display of product” and “package and label” emerged as the least frequently used device. “Logos & Symbols” was found to be a distant no.2 in usage frequency.

Silent visual placement

Frequency of usage of silent visual placement in 100 Brand Placements

	1.1	1.2	1.3	1.4	Total
Frequency	13	19	13	40	85
%	15.3	22.4	15.3	47	100

1.1	Silent display of product
1.2	Logos & Symbols
1.3	Package and Label
1.4	Outdoor/Signage/POP

Chart VII – Table 1, Intensity Analysis

2. Identified interactive inclusion as the most popular intensity type of BP. In interactive inclusion, using **combinations** of its devices was seen as a dominant practice.

In the interactive visual placement “usage situation” was found to be the most dominant (53%) followed by “product/logo/symbol pointed at, product touched or offered by character”. “Brand name on body or accessories of character was third popular pattern and “product

demonstration” route to BP was the least popular. In 100 BP studied, 32 have been in combinations of various ways of using interactive visual placement. Combining “product usage” situation with the device of “product logo/symbol/pointed at, product touched or offered by character” is the most popular pattern. Combination of “usage situation” and ‘brand name on body or accessories of characters’ is the second most popular pattern. “Product usage” emerged as the most popular device for interactive visual placement and served as an anchor for combinations within.

Intensity Analysis

	2.1	2.2	2.3	2.4	Total
Frequency	29	59	8	15	111
%	26.1	53.2	7.2	13.5	100

2.1	<i>Product or logo or symbol pointed at, product touched or offered by characters</i>
2.2	<i>Usage situation</i>
2.3	<i>Product demonstration</i>
2.4	<i>Brand name on body of characters/accessories</i>

<i>Frequency of usage in combination</i>
$2.1+2.2=15$
$2.1+2.3 = Nil$
$2.1+2.4= Nil$
$2.2+2.3=2$
$2.2+2.4=7$
$2.3+2.4=Nil$
$2.1+2.2+2.3=2$
$2.1+2.2+2.3+2.4=Nil$
$2.1+2.3+2.4=Nil$
$2.1+2.2+2.4=6$
<i>Total = 32</i>

Chart VII – Table 2, Frequency of usage of interactive Placement in 100 BP

3. In the interactive inclusion-Audio, only once audio identity was used in 100 brand placements. This can be due to the challenges in creating, owning and executing an audio identity in BP, even though audio identity is a powerful brand recall device.

	3.1	3.2	3.3	Total
Frequency	X	I	X	I
%				

3.1	Jingle
3.2	Signature tunes
3.3	Phonetics

Chart VII – Table 3, Intensity analysis – Audio - Interactive Inclusion

4. In the interactive inclusion – verbal mention, “brand name in dialogue mentioned by the character” was the most dominant pattern than mentioning “about brand and brand properties”. Brand name mention was also done in combination of interactive visual placement.

	4.1	4.2	Total
Frequency	36	7	43
%	83.7	16.3	100

4.1	Brand name in the dialogue mentioned by character orally
4.2	About Brand or Brand Properties

Chart VII – Table 4, Intensity analysis - Verbal Mention - Interactive I

5. In the interactive inclusion – thematic identity – “Brand Association” was the most dominant way of executing thematic identity followed by “brand ambience/experience/locale”. Use of “Celebrities common in ads and movies” have also been used frequently.

	5.1	5.2	5.3	5.4	Total
Frequency	3	22	14	7	46
%	6.5	47.8	30.5	15.2	100

5.1	Visual images/style or properties as in ads. Imitation of Scenes from ads
5.2	Brand association
5.3	Brand experience/ ambience /locale
5.4	Common celebrities in ads and movies as symbols

Chart VII – Table 5, Intensity analysis - Thematic Identity-Interactive

Identified linkage between 4 dominant product categories and BP

- a) Food & Beverage

- b) Fashion
 - c) Media & Entertainment
 - d) Automobile & Two wheelers
6. Found that five brands were placed per movie.
 7. **Proposes** a new definition

This study revealed new perspectives and new elements that encapsulate the concept of BP:

1. Innovation in marketing communication with Distinct Values
2. Audience Driven strategic communication process with choices of intensities and management through frequency and duration.
3. Outcome: Brand Recall, Brand Recognition, Promotion of Brand Value and Brand Property and Audience Connect.

<i>Formation of definition: 2 Intensities, 4 Superstructures and Outcome</i>		
<i>New Perspective: BP is an Innovation in marketing communication. BP is an Audience driven strategic communication process.</i>		
<i>Intensities of inclusion</i>	<i>Super Structures</i>	<i>Outcome</i>
<ol style="list-style-type: none"> 1. Visible Placement 2. Interactive Inclusion 	<ol style="list-style-type: none"> 1. Content 2. Media 4. Stakeholders 3. Distinct Values 	<i>Brand Outcome & Professional goals</i>

PROPOSED DEFINITION:

Brand Placement, an innovation in marketing communication with distinct values, is the paid inclusion of communicative brand identities, via management of intensities, in creative content of any media and is an audience driven strategic communication process, managed by stakeholders for an outcome.

Interplay of Communicative Identities in Creative Content

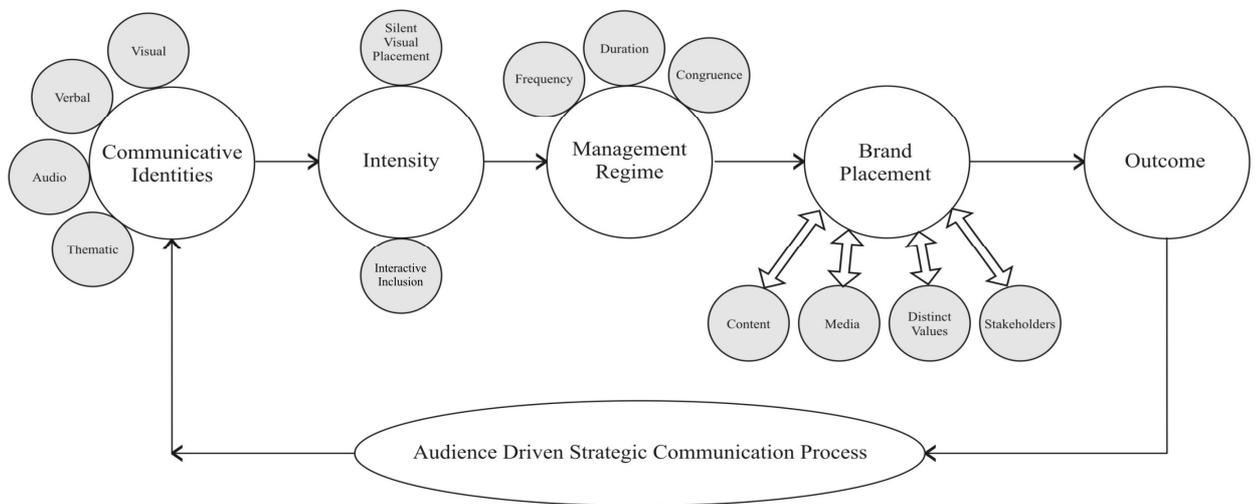


Chart VIII - Concept Chart

DISCUSSION

This model encapsulates the concept of BP and its process. Understanding the DNA of BP is to understand firstly the two perspectives that BP is an innovation in marketing communication and that it is an audience driven strategic communication process. BP is an Innovation because the brand is in content and not in an ad capsule appearing in the ad breaks. It has distinct values.

The process of BP begins with setting up of professional goals and an understanding and selection of Communicative Identities whether Visual, Verbal, Audio or Thematic. At the second stage one makes a choice of the Silent Visual Placement or Interactive Visual Placement. The placement of brand message in content is done through a strategic management process. The choice of intensities and the management of intensities through frequency and duration, the choice of context, characters and celebrities and the choice of media for brand congruency makes it an audience driven strategic communication process.

Secondly, there are 4 superstructures namely Content, Media, Distinct Values and Stakeholders on which the concept of BP rests. Thirdly BP is a professional practice with professional goals and has outcome. The Outcome of a BP exercise is assessed, discussed and the learning is used in reformulating the strategy beginning with the objectives, selection of the

communicative identities and brand messages. The four superstructures that encapsulate the concept and principles of BP are discussed here in detail.

CONTENT

BP is brand in content, entertaining or informative. It's the first requirement for BP and is the system in which it is included. Entertainment contents like Movie, TV programmes, Video Games and Music Albums are contents that attract BP.

The content can be compelling if the story line is richer in entertainment. If the content is richer with personalities, situations, contexts, celebrities, reflecting the society both real and aspirational, it will attract BP. The situations in content, movies, soaps or infotainment, offer positioning contexts. These contexts enable execution of brand differentiation. In a conventional advertising format an advertising specialist will be otherwise crafting the product context. Globally, soaps are media vehicles of choice of a majority of viewing audiences wherever they are aired (Allen 1995) and depict reality through the lens of the particular culture where it is produced and consumed. "Soaps have a common feature – product placements in consumption scenarios. The placement also reflect the economic realities of production, the society in which characters and consumers live and the nature of the products shown."

The entertainment plots also present a number of personalities like traditional or modern, ambitious, educated, leaders in village or metros, society or industry, extrovert or introvert, simple or show off and product usage situation like kitchen, home, outdoor, party, marriage, picnic, travel, hangout, college, hospital and others. Such opportunities provide scope for a personality fit between brand and content. **Contexts give congruence of brand positioning and viewers. BP being an audience driven communication process examines the context fit, character fit and celebrity fit to ensure congruence.**

In the information content how ever the audience can also be active and interactive. "Participatory media" or "citizen media" (Economist 2006) has revolutionized the content creation and the audiences are no more just the receivers of messages but also the creators of their own content with pictures, video, text and audio.

The emergence of "The new interactive paradigm of content creation enables **audiences to be both creators and receivers of content** at the same time, leaving out the exclusivity of content creation from conventional media firms and marketers (Jerry Kliatchko, 2008). Thus the audience has evolved into a stakeholder and plays a role in the content creation and consumption.

MEDIA

The media channels with good reach are likely to be the chosen media for BP practice. Movies, TVs, Radio, Internet, Video Games, Music Album Seminars and Fiction are potential media for BP due to rich entertainment and informative content and media consumption habits. Fragmentation of channels, simultaneous media exposure and usage, and altered media consumption habits of audience (Schultz et al 2005) offer new challenges and opportunities to BP. The media exposure and usage habits of audiences may either come in the form of "**foreground**" media (the main medium at any given time) or "**background Media**" (secondary

medium) used. Being audience driven strategic communication process BP may be more frequent in the foreground media like Movies, TV programmes. Media is a reach enhancer for BP.

STAKEHOLDERS

The **interaction network** of BP will include the (1) Creative industry – Production House, Celebrities, Directors of movies, (2) Brand Owners - Advertiser, Agency, (3) Audience and Consumers and (4) Government. The objective of their interaction is to meet their **professional goals, accountability and responsibility** for their roles and jointly upholding of **moral and ethical standards** of brand inclusion. The stake holders are the drivers of the concept and also have the responsibility to uphold the dignity and respect of the viewers and consumers at all times and they have to be sensitive to the moral issues that surround their practice. This demands the use of persuasive means of communication that are respectful, and shunning all forms of manipulation, exploitation and corruption at all costs (Pontifical Council for Social Communications on Ethics in Advertising 1997).

DISTINCT VALUES

The distinct values are the unique merits of brand placement that characterizes it as an innovation. Distinct values have the power potential to disrupt and substitute partly or fully. This paper identified 11 such disruptive values of BP:

1. Captive Audience: In BP brand message is consumed with the programme. The ad cannot be avoided. In conventional advertising ad appears in the ad breaks. Hence the viewers rating points for the programme need not be equal that of advertising due to ad avoidance. In other words the programme reach can be equal to the reach of brand message.
2. Clutter Free: When brand is in content, there is no interruption or irritation due to ad breaks. The brand enjoys a 'solus' advantage and doesn't have to compete for noticeability, work hard for cutting through clutter and rise above the noise level of competition.
3. Celebrity Cost Advantage: Celebrity advertising is increasingly practiced for cutting through clutter, noticeability and favorable perception. The celebrities charge a hefty fee to do endorsement ads. In brand placement since the advertiser is paying for the brand in content, even though the celebrity may be interacting with the brand, the costs may be lower in comparison.
4. Shelf Life: The entertainment products have a shelf life. They can be repeat viewed. A movie can come on TV or one can watch a DVD. While you pay for an ad insertion every time.
5. Cost Effective: This pertains to the cost of brand placement Vs the cost of production of TV commercial and release cost in TV.

6. Brand Recall, Brand Recognition and beyond: A perception that BP can deliver more than just Brand Recall and Recognition.
7. Audience Connect: BP has the power-potential to connect because of Celebrities Contexts and Consumption habit
8. Multiple Positioning and Usage Opportunities: Entertainment products like movies and TV programmes and also offer multiple contexts and situations, multiple characters, multiple celebrities offer a number of opportunities to position a brand or bridge the gap between intended brand positioning and market positioning. BP also gives a number of usage situations for products.
9. Credibility: The credibility of the message is multiplied by the credibility of the characters, programme and that of the celebrity. While viewers know an ad and that its purpose is to sell. The realism in BP contexts enhances the credibility.
10. Celebrity Value: In BP the star and super star value of the Celebrity works in favour of the brand. When the brand is interacting with the main character the brand value is enhanced.
11. Promotion of Brand Values and Brand Properties: BP is a compatible medium where one can promote brand values and brand properties.

OUTCOME

BP as a professional practice will be expected to perform in the area of brand recall, brand recognition, positioning opportunities, usage situation and behavioural changes. Reach and Connect will demand outcome metrics that can be practice. The process of growth of BP will be defined by the achievement of pre set objectives and audience acceptance of the content. Given the fact that celebrities promote the brand in entertainment content the potential for audience-connect-persuasion exists.

ORIGINALITY VALUE

1. Indian Entertainment and Information industry is one of the largest in the world. There is a growing usage of BP. But very little research is done on this nascent subject. This paper will give both the practitioners and the academia a comprehensive understanding of BP.
2. An understanding of Intensities and its management, distinct values and disruptive qualities, importance of contexts, celebrities, characters and congruence, and the possible out come of brand recall, brand recognition and audience connect will enable the practitioners to take a well informed decision.
3. The creative industry now has with it, the practitioners' perspective on the distinct values and 4 Cs and will be effectively able to position BP against other options of marketing communication and promote it.
4. Practitioners also will know that they have to build consensus in the areas of Principal components with high variation like multiple positioning and usage

opportunities, shelf life, brand recall, recognition & beyond, and credibility, in order to ensure that BP is practiced extensively in the future.

5. This along with the new model of BP gives researchers new areas to work on.

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THE MIDDLE EAST PEACE PROCESS AND THE ISRAELI SHEKEL, 1999:2008

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Keywords: exchange rates, news, peace process, interest rates, Oslo peace index

INTRODUCTION

On September 13, 1993, Israel and the PLO signed a Declaration of Principles based discussions that had begun in Oslo, and this signaled the beginning of the peace process between Israel and the Palestinians. Initially, there were great hopes that a final agreement would be concluded relatively quickly, but this has not yet occurred. Instead, the peace process has experienced an almost continuous series of ebbs and flows from 1993 until the present.

A peace agreement is expected to generate a peace dividend that there would be greater foreign investment, tourism, a substitution of military spending for more productive spending, greater regional trade and a general increase in consumer confidence in the region.²²⁹ This peace dividend should also lead to an appreciation of the Israeli shekel due to the greater demand for the currency. The peace dividend can be partially realized even before a final agreement if there are expectations for peace. Accordingly, one would expect the Israel shekel to appreciate if there are increases in expectations for peace between Israel and the Palestinians, and decrease if expectations for peace declined.

This paper will test the hypothesis that changes in expectations for peace between Israel and the Palestinians influence the value of the Israeli shekel. We incorporate a monthly survey of expectations regarding the peace process in Israel in a regression analysis of the changes in the value of the Israeli shekel, and we find that increase in expectations for peace lead to an appreciation of the Israeli shekel.

Our result accords with several findings of the importance of news, and specifically non-economic news, on the foreign exchange market. Blomberg and Hess (1997) found a connection between political ratings and the value of the US dollar, and that a political model of exchange rates outperforms random walk models of the exchange rate. Kauffman and Weerapana (2006, p.366) have shown "that 'bad' news about AIDS has a detrimental impact on the value of the South African Rand." Zussman, Zussman and Nielsen (2008) in a study of the foreign exchange market from 2000-2005 have found that several turning points in the value of the Israeli shekel during the period were associated with both positive and negative changes in the peace process.

Other studies have found a relationship between the Middle East peace process and other economic and financial variables. Schein (2003) in a study of the period 1994-2001 found a positive relationship between expectations for peace in the Israel and Israel's GDP. Eckstein and

²²⁹ See Ben Bassat (2002) pp.33,34.

Tsiddon (2004) in a study of the period 1980-2003 found that high level of terrorism decreased per capita consumption in Israel. Levy (2009) in a study of the period 1994-2007 found a positive relationship between expectations for peace in Israel and stock returns in the Israeli and Palestinian stock markets.

The remainder of the paper is as follows. We begin with a brief review of the peace process, the movement of the shekel, inflation and interest rates in Israel for the period 1999-2008. Afterwards we will explain the variables in the regression, and then present the regression results. The paper concludes with a discussion of the significance of the results.

REVIEW OF THE PEACE PROCESS, INTEREST RATES, EXCHANGE RATE REGIMES AND EXCHANGE RATES IN ISRAEL 1994-2008

After the signing of the Declaration of Principles in 1993, in July 1994, Israel ceded control of most of Gaza to the Palestinians, and in September 1995, an interim agreement (Oslo II) was signed. In 1996, there was a wave of terrorism in Israel, a "right-wing" government was established in Israel, and progress on the peace process stalled. In May 1999, Ehud Barak was elected Prime Minister of Israel, and immediately set about to complete the peace process. However, negotiations in Camp David in July 2000 failed, and in October 2000, the second *intifada* erupted. The *intifada* peaked in its intensity in the beginning of 2002, and slowly died down after Operation Defense Shield that began on March 29, 2002. In 2001, 207 Israelis were killed, in 2002, 452 Israelis were killed, in 2003 214 Israelis were killed and in 2004 107 Israelis were killed due to terrorism.²³⁰ In 2005, Israel unilaterally disengaged from Gaza removing all Israeli citizens and the Israeli army from Gaza. In January 2006, Hamas won the Palestinian parliamentary elections and in June 2007, Hamas wrested all control of Gaza from its political rival Fatah. During this period, there were numerous rocket attacks on Israel rising to 1,750 rockets and 1,528 mortar bombs fired from Gaza into Southern Israel in 2008,²³¹ and on December 27, 2008 Israel attacked Hamas for three weeks.

During this period from 1994-2008, there was a change in the trend rate of Israel's inflation.²³² In 1994, Israel's yearly inflation rate was 14.45%, and from 1994-1998, the average yearly inflation rate was 9.75%. However, in 1999, the inflation rate declined to 1.34%, in 2000 there as zero inflation, and in 2001, the inflation rate was 1.41%. In 2002, the rate jumped to 6.5%, but then there was 1.89% deflation in 2003. In the ensuing years, 2004-2008, the average inflation rate was 2.14% with the highest level being 3.8% in 2008. This change in the trend rate means that starting from 1999 Israel's inflation rate was comparable to inflation rates in the developed world, while previously Israel had been a high inflation country.

²³⁰ Data from www.mfa.gov.il, the website of Israel's foreign ministry.

²³¹ Data from www.mfa.gov.il.

²³² Information concerning Israel's rate, exchange rates inflation and interest rates of the Bank of Israel are available from the Bank of Israel's website, www.boi.gov.il.

The change in the inflation rate was due to the contractionary monetary policy of the Bank of Israel. In 2004, the Bank of Israel raised its interest rates from 10.5% in the beginning of the year to 17% by the end of the year. In 1995, 1996, the Bank slightly lowered its interest rate but then raised it back again to 17% in July 1996. From July 1996 to August 1998, the bank lowered its rate very slowly to 9.5% but then after the Russian debt crises in August 1998 and the collapse of LTCM in September 1998, the bank raised its rates 400 basis points to 13.5%. Afterwards the bank again began to lower its rates slowly, reaching a rate of 3.8% in January 2002. With the rise in inflation in 2002, the bank sharply raised its interest rate to 9.1% in July 2002, and then as inflation subsided, the bank slowly lowered the rate to 4.1% in April 2004. From April 2004 through September 2004, the interest rate fluctuated between 5.5% and 3.5%, and after the Lehman Brothers fallout, the bank lowered its rate to 2.5% in December 2008.

In addition, the Bank of Israel also changed its exchange rate policies several times during the period 1994-2008.²³³ In 1991, Israel adopted a diagonal upward sloping trading band, which allowed the shekel to depreciate at a regular rate. With this regime and its high interest rates, the bank regularly intervened in the market in order to keep the exchange rate near the midpoint of the band. In June 1997, the bank widened the trading band, and then with the exception of several days in January 2008, the bank stopped intervening in the market. In addition, the band was continuously widened and in 2003, the upper limit was 70 percent above the lower limit. In June 2005, Israel officially abolished its trading band and the shekel was allowed to float freely, though this had already been the effective reality since 1998. In March 2008 the Bank of Israel began again to intervene on a daily basis by selling shekels and buying dollars and this policy continued until August 2009.

Concurrent with these changes in inflation and Bank of Israel's exchange rate regimes, the shekel has also had various changes from 1994-2008. In Israel, the most important exchange rate is the shekel (ILS) with regard to the US dollar, as numerous contracts in Israel are denominated in dollars due to the history of very high inflation in the 1970s and 1980s. Every business day, the bank of Israel announces the representative USD/ILS exchange rate, and this determines how many shekels a person is obligated to pay according to the contract. On January 3, 1994, the exchange rate was 2.98 USD/ILS, and from 1994 -1998, the shekel depreciated every year, 1.07% in 1994, 3.88% in 1995, 3,7% in 1996, the shekel depreciated another 8.77 in 1997 and 17.65% in 1998. This trend of yearly depreciations corresponds to the relatively high inflation of the period. With the change in the trend of the inflation rate, the trend rate of the shekel also changed. In 1999, the shekel appreciated slightly, 0.17%, and again in 2000 the shekel appreciated 2.7%. In 2001 and 2002, the shekel resumed its rate of depreciation declining respectively, 9.28% and 7.27%. However, from 2003-2008, with the exception of 2005 when it depreciated by 6.85%, the shekel appreciated all the other years, on average 5.5%, ending on last day of trading in 2008 at the rate of 3.80 USD/ILS. Overall the shekel appreciated 9% from its value on the last day of 2008 in comparison to its value at the end of the year in 1998.

With this brief review of the peace process, inflation, interest rates, exchange rate regimes and the value of the shekel from 1994-2008, we can proceed to the regression.

²³³ This review until 2003 is based on Elyakam (2003).

ECONOMETRIC TEST

The hypothesis that we are testing is whether the changes in the peace process impact on the value of the shekel. More specifically, as discussed in the introduction, we expect that there when there are an increase in expectations for peace, the shekel will appreciate, while when expectation for peace decline, the shekel will depreciate.

The test is for the period 1999 through February 2008. The starting date is because, as mentioned above, starting from 1999 inflation in Israel was similar to levels in the developed world and from 1999 onwards the inflation rate was no longer the significant factor in determining the short run nominal exchange rate in Israel. The ending date was because in March 2009, the Bank of Israel began to intervene on a daily basis in the foreign exchange market, and hence in the period under study there was no direct intervention by the Bank of Israel in the foreign exchange market.

The independent variable is the percentage change in the end of month shekel dollar exchange rate, s , as stated by the Bank of Israel when it announces the representative exchange rate on the last day in the month when the foreign exchange market is open. The dependent variables are the percentage change in the Oslo peace index, (Oslo), the spread between US and Israel's interest rates (spread) and the percentage change in the number of incoming tourists to Israel (tourists).

The Oslo peace index is calculated every month by the Tami Steinmetz Center for Peace Research of Tel Aviv University. The index is based on a monthly survey at the end of the month of 500-600 people in Israel about their views concerning the peace process. In the 1999, the index was at its highest level in our study, at 52.3 in January 1999 and rising to 56.8 in April 1999. Its lowest value was in May 2002 at 29.1, and on February 2008, the last date in our study its value was 30.1. Overall the average value of the index for the period was 38.25.

The surveys were conducted every month except for two months, July and August 2006 during the war between Israel and Lebanon. In order to solve this problem of missing data, we smoothed the data for these months based on the values prior and after the gap. Accordingly, as in June 2006, the value of the index was 33.6 and in September the value of the index was 33, we used a value of 33.4 in July and 33.2 in August. The data for the Oslo index is available at the website of the Tami Steinmetz center, www.tau.ac.il/peace.

The second dependent variable was the spread between the Bank of Israel's interest rate and the Federal Funds rate. This variable tests the theory of uncovered interest rate parity that the interest rate differential between deposits in two different countries forecast changes in the corresponding currencies that will offset the interest rate differential. For example, if shekel denominated interest rates are higher than dollar denominated interest rates, then one would expect the shekel to depreciate with respect to the dollar in order to equalize returns from holding either shekels or dollars. Yet, studies show that the currency with the higher interest rate tends to appreciate, contradicting the theory of uncovered interest rate parity.²³⁴ This data is available at the website of the Federal Reserve and the Bank of Israel.

²³⁴ For surveys of this literature see Froot and Thaler (1990), Engel (1996) and Lewis (1989, 1995).

The test was also run with just the Bank of Israel's interest rate (BOI) as the dependent variable. Kahn, Kandel and Sarig (2002, p.1517) found that "a monetary shock, which is defined as change of 1.05% of the Bank of Israel's interest rates, causes a 0.1 percentage point change in the exchange rate of the shekel." However, Zussman, Zussman and Nielsen (2008) found that when the Bank of Israel reduced its interest rate from 5.8% to 3.8% (a fall of 34%) in December 2001, the largest reduction during the period, this did not cause a turning point in the value of the shekel.

The third variable was the percentage change in the number of incoming tourists. This value was calculated as the percentage change year over year per month. For example, the data for January 2002 was the percentage change in the number of tourists in January 2000 with respect to the number of tourists in January 1999. This variable was included in an attempt to capture foreign expectations for peace. The rationale is that when foreign expectations for peace are higher then more tourists will come to Israel. For example, when the second *intifada* began in the fourth quarter of 2000, there was a 44% decline in the number of incoming tourists. Schein (2003) found that this variable had a significant effect on Israel's GDP. Eckstein and Tsiddon (2004, p.994) write, "the elasticity of foreign visits to Israel with respect to threat of terror or war seems to be so high that no regression is needed to verify it." Yet, the question remains whether this variable can help explain movement in the value of the shekel?

The estimated regression equations are:

$$(1) s_t = \alpha + \beta_1(\text{Oslo}_t) + \beta_2(\text{spread}_t) + \beta_3(\text{tourists}_t) + \varepsilon_t$$

$$(2) s_t = \alpha + \beta_1(\text{Oslo}_t) + \beta_2(\text{BOI}_t) + \beta_3(\text{tourists}_t) + \varepsilon_t$$

The regression results are:

<i>Dependent variable:</i> <i>spot exchange rate</i>	<i>R Squared: 0.068</i>	<i>Adjusted R Squared: 0.042</i>		
<i>Independent variables</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>T</i>	<i>Significance level</i>
<i>Constant</i>	-0.102	0.269	-0.377	0.707
<i>Oslo</i>	-0.056	0.024	-2.326	0.022
<i>Spread</i>	0.013	0.064	0.200	0.842
<i>Tourists</i>	-0.005	0.005	-0.112	-1.182

Table 1. Regression Results: Equation One

<i>Dependent variable:</i> <i>spot exchange rate</i>	<i>R Squared: 0.072</i>	<i>Adjusted R Squared: 0.045</i>		
<i>Independent variables</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>T</i>	<i>Significance level</i>
<i>Constant</i>	0.238	0.483	0.492	0.624
<i>Oslo</i>	-0.055	0.024	-2.302	0.023
<i>BOI</i>	-0.04	0.066	-0.676	0.501
<i>Tourists</i>	-0.006	0.005	-1.321	0.189

Table 2. Regression Results: Equation Two

REGRESSION RESULTS

The results from the regression are nearly identical. One, in both regressions, the coefficient for the Oslo index had both the correct sign and was significant at a 97% percent confidence level. The negative sign means that as expectations for peace increase, the shekel dollar exchange rate falls, which is an appreciation of the shekel. On the other hand, the second variable which measured foreign expectations for peace, the percentage change in the number of incoming tourists, had the correct sign, but was not significant at a 10 percent significance level. This lack of significance might be because the change in incoming tourists while relatively quick in the goods market still occurs with a lag in the foreign exchange market. In any event, the results for the Oslo index demonstrate that expectations for peace have a significant impact on the value of the shekel.

On the other hand, the regression results show that changes in the interest rates do not have a significant impact on the value of the shekel. In the first equation, the coefficient on the spread between Israeli and US interest rates not only had the wrong sign but was insignificant. This result would be another rejection of the theory of uncovered interest rate parity. In the second regression the sign of the coefficient on the parameter BOI is negative which implies that an increase in the Bank of Israel's interest rates causes an appreciation of the shekel but again the coefficient is insignificant.

The results again highlight the importance of incorporating non-economic news into forecasts of the exchange rates. Of course it is tricky to predict these events and for each country one would have to investigate what particular news impacts on the exchange rates, as clearly not all news have an impact. In many cases, the news would be specific to the particular country, as for example the peace process in Israel, the peace process, and the spread of AIDS in South Africa. Thus, this forecasting would need to go beyond the usual macroeconomic factors that are relevant to all countries and to incorporate country specific non-economic factors that impact on the exchange rate.

In addition to helping with forecasting, the results also suggest a new perspective on understanding the "crisis" of the Israeli economy in the first half of 2002, see Table 3.²³⁵ The crisis was that there was a depreciation of the shekel from 4.233 shekels/ dollar in the end of November 2001 to 4.893 in the end of April and 4.916 in the end of May. In June, it appeared that the shekel was on the verge of passing the threshold level of five shekels/\$ and in response the Bank of Israel raised its interest rates to 7.1 percent in the middle of June and then to 9.1 percent in July. These interest rate hikes appear to have caused the shekel to appreciate, as at the end of June the shekel/\$ rate was 4.769 and by the end of July the rate had dropped further to 4.689. Also, the shekel began to fall in the end of December when the Bank of Israel lowered its interest rate by 2% to 3.8%. However, as noted above, Zussman, Zussman and Nilesen did not find that the reduction in interest rates was not associated with a turning point in the value of the shekel and this corresponds with the results here that the interest rates did not significantly impact on the value of the shekel.

²³⁵ See discussion in *Bank of Israel, Recent Developments, August 5, 2002* and a brief recollection of the crises in newspaper article by Nehemia Shtrasler, *Haaretz, April 14, 2007*.

The explanation for the crises from the regression results here is that the initial fall of the shekel was due to a lowering of expectations for peace in December 2001 and January 2002. In April when the shekel lost almost 5 percent of its value, the biggest one month reduction for the period, there was a 20 percent decline in expectations for peace. This trend from April continued in May, as Oslo peace index fell to its lowest level, 29.1. In June through August there was a reversal of the trend, as expectations for peace rose 15 percent, with the index rising to 33.5 in August. If this explanation is correct, then the shekel would have strengthened without the increase interest rates, and the Bank of Israel might have over-reacted by raising interest rates which most likely exacerbated the recession that was occurring at that time.

A third implication of the results here is that paradoxically if positive developments in the peace process lead to an appreciation of the shekel, then this appreciation might temper some of the peace dividend that is predicted in the event of a final agreement. A strong shekel could cause Israeli exports to decline and might reduce the amount of tourists and foreign investors. Yet, this effect would only reduce the peace dividend, but still overall one would expect a peace agreement to not only save lives but also to increase the GDP of all the countries in the region.

<i>Month</i>	<i>End of month spot rate</i>	<i>Interest rate of Bank of Israel</i>	<i>Interest rate spread (basis points)</i>	<i>Expectations for peace</i>
<i>Nov- 01</i>	4.233	6.1	410	34.7
<i>Dec- 01</i>	4.416	5.66	366	34.4
<i>Jan- 02</i>	4.602	3.8	205	33.7
<i>Feb- 02</i>	4.623	3.8	205	35.8
<i>Mar- 02</i>	4.668	4.4	265	36.6
<i>Apr- 02</i>	4.893	4.4	265	29.4
<i>May- 02</i>	4.916	4.6	285	29.1
<i>Jun- 02</i>	4.769	6.46	471	30.5
<i>Jul- 02</i>	4.689	9.1	735	30.6
<i>Aug- 02</i>	4.660	9.1	735	33.5

Table 3 - Monthly spot rates, interest rates spread and expectations for peace: November 2001- August 2002

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THE PARADIGMS OF WINE CONSUMER BEHAVIOUR: INSIGHTS FROM THE PORTUGUESE MARKET

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This paper explores some of the key factors that determine the wine decision making process and explores the personal values and emotions of the Portuguese wine consumers. In addition, reports the results of the personal value based consumer segmentation. The empirical insights of this exploratory research suggest (1) the structure of perceived attributes and motivations that shape different degrees of involvement, (2) the interaction between different situations of wine use with different price bands, (3) the psychological dimensions that the consumer projects, recognizes and uses on wine purchase decisions. The findings of this study suggest that Portuguese wine consumer use a small range of buying decision intrinsic/extrinsic factors. The product information gap demands Portuguese wineries to improve value perceptions and wine usages.

Main aim, findings and conclusions of this research- The aim of the paper is to provide an overview about key factors that determine the wine decision making process and explores the personal values and emotions of the Portuguese wine consumers. The results enable the essential features of a consumer profile of purchase and consumption with respect to the structure of attributes - intrinsic and extrinsic - that Portuguese wine consumers best recognize and value in determining its quality; the motivational structures that encourage and guide them in their wine decision-making process; the interaction between different situations of consumption and different price bands. These findings led us to the following conclusions about the Portuguese wine industry profile: (1) must to adjust to huge competitive marketplace because it is still production and sales-based; (2) more market oriented.

Keywords: Anthropomorphic Perception; Involvement; Perceived quality; Price by usage situations;

INTRODUCTION

Wine is Portugal's most important agricultural export with still wine representing 0.6% of all exported products and services. Wine companies have been working against a downward trend in the volume and value of wine consumed in Portugal, which have been annually contracting in real terms by -2.0% and -1.6% respectively over the last decade. Portuguese winemakers still focused on the short-term opportunity in the domestic market. There are few 'brand leaders' that gain a reputation for excellence in export markets and simplify Portuguese wines for a potential consumer (Monitor Group, 2003).

There is still a considerable lack of knowledge in Portugal concerning wine consumers attitudes, perceptions and behavior. Hence, our main objective has been to obtain structured and generalisable information to clarify the perceptions, expectations and motivations that Portuguese consumers place on the essential dimensions and attributes when purchasing and

consuming still wine. Moreover, the results obtained from the heads of major companies in the sector by means of interviews suggest that their orientation to the dominant product and its distribution is subtly related to, or absent from the necessary guidance of the market.

REVISION LITERATURE

The traditional theory of wine marketing defines this product as a set of attributes that attempt to meet the needs of its consumers (Spawton, 1991). Furthermore, the dynamics of the market changed the behavior of consumers. This had a significant impact on the discourse of new consumers as quality has been increasingly assumed to be a multidimensional concept. Quester and Smart (1998) suggest that quality is a characteristic of the wine that is both difficult to define and to communicate. The level of quality required may vary upon a variety of circumstances including the consumption occasion. The quality of wine, however, is difficult to evaluate objectively or precisely measured (Oczkowski, 2001).

The complexity and perceived risk associated with the decision to purchase and consume wine justifies the concept of perceived total quality: the intrinsic and extrinsic attributes, and the extent to which these are recognized as causes of value. Lockshin & Rhodus (1993) found that quality perceptions of wine were based on *intrinsic cues*, such as grape variety, alcohol content and wine style, which relate to the product itself and the processing method as well as on *extrinsic cues*, including price, packaging, labeling and brand name, which can be altered without actually changing the product. In spite, Gluckman (1990) postulates that consumers do not have a clear understanding of branding in the wine market, while Lockshin, Rasmussen & Cleary (2000) highlights the fact that brand name acts a surrogate for a number of attributes including quality and acts as a short cut, in dealing with risk and providing product cues. When a product has a high proportion of attributes that can only be assessed during consumption (experience attributes) as with wine, then the ability of consumers to assess quality prior to purchase is severely impaired, and consumers will fall back on extrinsic cues in the assessment of quality (Speed 1998; Salaun & Flores, 2001; Antonelli, 2004). Price is an important cue for quality when few other cues are available, when the product cannot be evaluated, or when the perceived risk of making a wrong choice is high (Dodds & Monroe, 1985). According Spawton (1991) in the purchase of wine, price is also used to overcome perceived risk. The wine perceived price-quality relationship (umbra and market potential) enables the reasons for, and magnitude of, the decision to purchase to be determined; by measuring the gap between different price ranges (minimum / maximum) depending on the levels of perceived quality that consumers associate with it; setting up a relevant indicator of potential demand (Keown & Casey, 1995). Recent research by Jarvis, Rungie, & Lockshin, (2003a) shows that consumers seem most loyal to price bands. Furthermore, Hall & Lockshin (1999) found a relationship between price and the situation where the consumer intends to drink the wine. These 'attributes' are related in consumer's minds to the "consequences' they produce. The literature review (Aurifeille, Quester, Lockshin, & Spawton, 2002; Lockshin, Quester, & Spawton, 2001; Rodriguez, Blanco, & Fernandez, 2006) further highlights involvement as one of the most important variables of segmentation in wine marketing. In this sense Barber, Ismail & Dodd (2008, pp. 72) consider that "involvement is a goal oriented and emotional state of interest, enthusiasm and excitement consumers exhibit towards a product category, which ultimately influences purchase or consumption of the product". If high involvement wine consumers use complex information

cues to inform their decision-making (Tustin & Lockshin, 2001; Yuan, So, Si & Chakravarty, 2005), wine novices (low involvement) use risk reducing strategies based on choosing known brands, recommendations from friends, advice from sales assistants, low prices, wine packaging, labels, grape varietal, evidence and samples (Barber et al, 2008). Analysis of the perceived structure that consumers place on the product image and brands seeks to identify a reflection of their own identity within them. The use in this paper of a range of anthropomorphic measures supports its aim to identify the psychological dimensions that the customary wine consumer projects and recognizes on the images of the brand(s) in this product group. This combination with other variables allows the design of a profile of segments capable of directly explaining the motivations behind purchasing certain brands and the way in which its products are used.

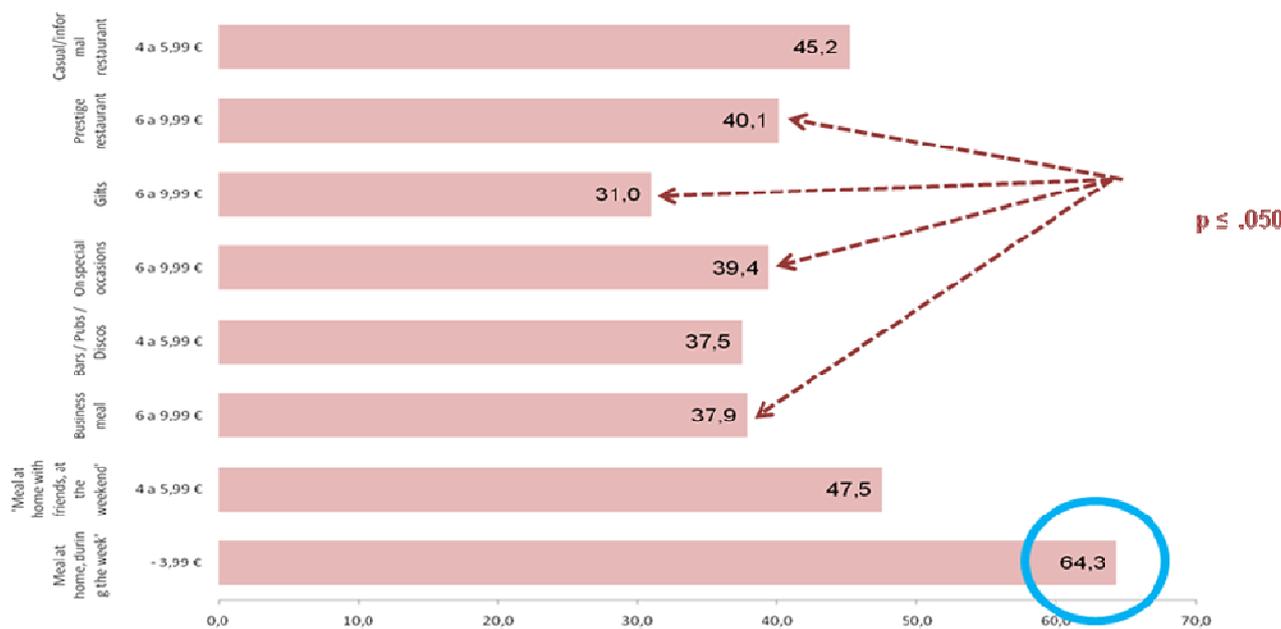
METHODOLOGY

Method of Data Collection - Population: Portuguese (men/women) over 18 to 65+ years old, who drinks wine at least once a month. All profile characteristics are defined as being statistically significant at 95% confidence, unless otherwise stated. The data has been weighted to represent the profile of Portuguese market. A Phone (CAPI) survey (N=2044) was used to assess socio-demographic characteristics, consumer behavior activities (e.g., frequency of use, type of information sources, involvement and perceived quality) and psychographic information (motivations and attitudes). With each question, a respondent profile was created - 1203 valid responses, gathered in September 2008 (95% confidence interval; 2,8% margin of error). The questionnaire used closed-ended and five-point Likert scale responses - demographic and consumption questions, followed 70 attitudinal statements, each question being rated with 5 strongly agree and 1 strongly disagree. Before data collection procedures began, the questionnaire was pilot-tested at local hypermarkets in Porto to assess content validity. All the modifications were made accordingly. Method of Data Analysis - most of the sequence data were subjected to statistical treatments concerning the attitudes and behaviors of the respondents. In a subsequent second phase, the information was further subject to a sequence of multivariate statistical techniques: Exploratory PCA (SPSS, v.17.0) and CFA (EQS, V.6.1), Oneway ANOVA, Cluster analysis and Logistic Regression to describe the perceptually implicit substructures and to clarify theoretically relevant relationships.

RESULTS AND DISCUSSION

For habitual wine consumers the data show that Portuguese men consume still wine more frequently: 45% claim to drink wine daily. The emergence of female consumption is concentrated in a less intense level of wine use: 21% claim to drink wine 2-3 times per month or less. When questioned about the most likely circumstances in which still wine would be consumed, the results of a Oneway ANOVA showed that Portuguese consumers in the age bracket of 45 years or older, drank wine with their daily meals (*at regular meals*) ($F = 7.518, p = 0.000$). If wine consumption *alone without food* is not expressed among Portuguese consumers, its social consumption - *in groups, in special occasions and at restaurant meals* - is an area of growth among the younger age bracket (18-34 years). Globally, Portuguese consumer's decision of buying still wine depends on their latest *consumption experience* ($\bar{x} = 3,97, SD = ,891$), *wanting to drink it with friends* ($\bar{x} = 3,90, SD = ,824$), the *type of food one will eat* ($\bar{x} = 3,87, SD = ,890$) and its

brand being well known and awarded ($\bar{x} = 3,83$, $SD = ,837$). Portuguese wine consumers underline some intrinsic key quality factors like the *harvest year* ($\bar{x} = 4,07$, $SD = ,719$), the *age of the wine* ($\bar{x} = 4,00$, $SD = ,860$), the *color* ($\bar{x} = 3,96$, $SD = ,792$), the *aroma* ($\bar{x} = 3,76$, $SD = ,748$) and *full body* ($\bar{x} = 3,71$, $SD = ,805$). The most valued extrinsic cues are *wine bottle design* ($\bar{x} = 3,79$, $SD = ,882$), *brand awareness* ($\bar{x} = 3,51$, $SD = ,966$) and *the price* ($\bar{x} = 3,50$, $SD = ,835$). In this work, the price is analyzed according to perceived brand/product quality and contextualized by various scenarios in which wine may be used. Graph 1. shows that in situations of wine use with a "meal at home during the week", Portuguese consumers claim to buy bottled still wine from a price range between 2 € - 3.99 €. At the weekend "with friends in bars, pub's and clubs" and from consumption during "informal occasions at restaurants", the value increases up to 4€ - 5.99 €. In the case of wine use for "special occasions", "gifts", "business meals" or when dining in "prestigious restaurants" the price consumers are disposed to pay is positioned in a price band between 6€ - 9.99 €. The results also suggest that the majority of Portuguese consumers are not predisposed to pay more than €10 in any situation of wine consumption. The data indicates that a lack of knowledge concerning strong intrinsic and extrinsic attributes makes it difficult for higher prices to be accepted, blocking the implementation of strategies to differentiate by price. Any improvement, revision and reorientation of the general pricing strategy implies an effort to educate and raise awareness of the qualities and attributes of still wine amongst final consumers, as well as professionals and advisors.



Graph 1 – Price Level by Consumption Occasion

LOGISTIC REGRESSION: BEST PREDICTORS OF WINE INVOLVEMENT LEVELS

Data were analyzed using SPSS V. 17.0 statistical procedures such as descriptive statistics, exploratory factor analysis and logistic regression. The descriptive statistics provide a slight description of the Portuguese wine consumer habits. Exploratory factor analysis and Logistic

Regression were utilized to identify underlying factors set that best discern between Portuguese wine enthusiasts (high involvement) and novices consumers (low involvement).

Portuguese low involved individuals, or wine novices, do not relate to wine as part of their lifestyle and seldom spend much time on reading specialty magazines, lingering in retail stores, talking to sales people or discussing wine with their" friends.

Buying Motivations (Cronbach's Alpha = ,837)		Exp(B)	S.E.	Sig.				
Step 6	Feeling enough informed to buy wine	2,384	,158	,000				
	The type of food one will eat	1,550	,156	,005				
	Having visited the DOC Region	1,401	,114	,003				
	Knowing the DOC Region historical tradition	1,388	,131	,012				
	Trust on the person who sells it	,754	,142	,047				
	The information on the label	,733	,130	,016				
	-2 Log Likelihood	453,368						
	Goodness of fit	907,906						
	Cox & Snell – R ²	0,217						
	Nagelkerke – R ²	0,290						
	Overall correct predictions	87,9 %						
Intrinsic Perceived Quality (Cronbach's Alpha = ,839)		Exp(B)	S.E.	Sig.				
Step 4	Wine aroma is diverse and intense	2,356	,165	,000				
	The best wine comes from just one grape variety	1,677	,145	,000				
	The best wine comes from the grape variety mixture	1,484	,157	,012				
	The best wine comes from an excellent grape variety	1,454	,148	,011				
	-2 Log Likelihood	478,380						
	Goodness of fit	69,232						
	Cox & Snell – R ²	0,160						
	Nagelkerke – R ²	0,214						
	Overall correct predictions	68,0 %						
Extrinsic Quality (Cronbach's Alpha = ,661)		Exp(B)	S.E.	Sig.				
Step 6	Wine brands are familiar/known to me	1,879	,155	,000				
	The label of the bottles is clear	1,786	,172	,001				
	The best wines are expensive	1,501	,173	,019				
	Wine bottles design is attractive	1,401	,174	,053				
	The information in the back label of the wine bottles is not clear	1,397	,140	,017				
	I don't have enough information to choose wine	,546	,139	,000				
	-2 Log Likelihood	436,597						
	Goodness of fit	112,240						
	Cox & Snell – R ²	,246						
	Nagelkerke – R ²	,328						
	Overall correct predictions	73,9 %						
Anthropomorphic wine perceptual structure (Cronbach's Alpha = ,794)		Exp(B)	S.E.	Sig.				
Step 3	Sociable	1,523	,150	,005				
	Fun	1,409	,125	,006				
	Young	1,288	,118	,033				
	-2 Log Likelihood	516,329						
	Goodness of fit	30,941						
	Cox & Snell – R ²	,075						

	<i>Nagelkerke – R²</i>	,100				
	<i>Overall correct predictions</i>	59,7 %				

Table 1. Variables in the Equation – Binary Logistic Regression

Usually these wine novices simplify their choice by utilizing *price, label design, grape variety, brand, wine menus, restaurant wine stewards* and risk reduction strategies to assist in wine purchase decisions. By contrast, high involvement wine consumers are more inclined to use complex information cues and buy more wine and spend more per bottle. To measure the involvement dimensions – *product involvement, brand involvement and purchase involvement* -, we used the overall mean and distribution derived from data and classified (*tow step cluster analysis*) the respondents into low or high involvement clusters. The overall mean was $\bar{x} = 26.89$ (SD = 4.564) with a Cronbach's Alpha of 0.751, indicating good internal consistency of the items. This dichotomous variable - wine consumer's personal involvement - acted as the dependent variable in 3 separate logistic regression analysis, taking the value 0 when subjects have low level of personal involvement with wine, and 1 when they have high level of personal involvement. The factor scores of wine *buying motivations, intrinsic/extrinsic cues and anthropomorphic wine perceptual structure* acted as the independent variables (*iv*). Of the 1203 respondents, 57,2% were wine enthusiasts and 42,8 % were wine novices. The results of binary logistic regressions suggest that different levels of wine purchase / consumption involvement can be explain by multiple factors – expectations, intrinsic/extrinsic cues and psychological ones. Nevertheless, only 6 of those 16 original motivational describers can discriminate between high/low wine involvement – “feeling enough informed to buy wine”, “the type of food one will eat”, “having visited the DOC Region”, “knowing the DOC Region historical tradition”, “trust on the person who sells it” and “the information on the label” (see Table 1), while only 4 of those original intrinsic perceived quality factor can also discriminate between high/low wine involvement – “wine aroma is diverse and intense”, “the best wine comes from just one grape variety”, “the best wine comes from the grape variety mixture” and “the best wine comes from an excellent grape variety”. Differently, 6 of those 6 original extrinsic cues can discriminate between high/low wine involvement. Portuguese wine novice consumers use brands awareness, labels, price, bottle design, label/back label information to chose, but they claim they need more information. Additionally, analysis of the perceptual structure that consumers place on the product and brand image seeks to find within them the reflection of their own identity. The use in this study of a scale of anthropomorphic perception measure aims to identify the psychological dimensions that the Portuguese consumer recognize and projects on to the brand image(s) of still wine. Despite a general association of various personality traits of Doc Douro, and as shown in Table 1., the results of Binary Logistic Regression by involvement high/low levels show that the degree of involvement with DOC Douro is only determined by the traits *sociable, fun and young*. This positioning may facilitate individual brands' in the adoption of "price premium" strategies, which reinforce among these segments an image of quality and exclusivity to attract younger and more dynamic market segments. Our results suggest that specific consumer knowledge components (*subjective/objective*) lead wine consumers to employ specific expectations, quality perceptions and psychological traits on their buying decision making process.

LIMITATIONS

Instead this ongoing research focus on the Portuguese consumer's involvement with wine, the results of this study can't be generalized. Next step research must be amplified to multicultural/multimarket to capture different knowledge structures and win involvement framework.

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MARKETING STRATEGIES FOR THE ECONOMIC CRISIS

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This paper examines ten different marketing strategies that may help businesses cope with the current economic and financial crisis. The suggested strategies are based on three basic principles: they do not require much capital, they cater toward the needs of the supply chain and they build the reputation of the brand. These ten strategies include: increasing supply chain confidence; plan flexibly for changing needs; use the marketing budget wisely, understand customers and re-segment the market; implement data base marketing to increase share of customer and market share; build brand value; improve marketing relationships and human interaction; re-evaluate product offerings and revenue management; develop better pricing strategies and use efficient marketing communication.

INTRODUCTION

“According to the head of the International Monetary Fund, the world currently faces its worst economic crisis in 70 years” (Macleod 2009). Richard L. Clarke (2008, p. 176) described the current financial crisis as “unsettled, challenging, and often harsh and unpleasant”. Most financial analysts suggest that this crisis is far from ending.

As credit dries up, many businesses and individuals have been caught with a cash flow problem and devaluated assets that are hard to sell. To cope, businesses are reducing marketing costs, especially advertising. While some businesses may need to cut costs, the current crisis also offers opportunities to improve marketing performance (Matei, Matei and Dinu 2009). As Hudak notes (2009, p. 3) “wise companies view a recession as an opportunity to gain an advantage over weaker competitors who remain on the sidelines waiting for the recession to end”.

All the strategies below are based on three basic principles: they do not require much capital; they cater toward the needs of the supply chain; and they are focused on building brand reputation.

TEN MARKETING STRATEGIES

The strategies suggested below may fit both end users (Business to Consumer - B to C) and business clients (Business to Business - B to B).

Be confident

Panic never helps the marketer in the marketplace; indeed, the opposite is true. Confidence conveys to customers that the business has plans, that it is stable and can be trusted. In times of crisis, consumers are looking for someone to rely on. A good supplier (B to B and B to C) provides customers with confidence. In order to create confidence, a business must plan flexibly,

changing offerings in accordance with the changing needs of customers. Suppliers should invest in their brands and seek to continue to preserve good relationships with customers.

Plan with flexibility

Smith (2008) correctly suggested that “An economic slowdown demands careful planning”. Consumers still buy in a weaker economy, but it depends on their condition and state of mind (see below – segment), their needs and wants, the perception of the brand and product value and their financial constraints. Change and flexibility in our plans are the keys to planning at such times (Court 2009). Thus, planning should be dynamic, careful and flexible. Such flexibility may also prepare businesses for the post-crisis period. For example, Lee, Beamish, Lee and Park (2008) found that in the Asian economic crisis, inflexible management in the home market has had a negative effect on their performance in the export market.

Use your marketing budget wisely

Wise revenue management may help a business survive (Garrow, and Ferguson 2008). Costs that do not build brands or create sales should be reduced. A business should invest in its brand and use creative advertisements but costs for media and raw materials should be cut. Inefficient distributors should be dropped along with less productive personnel and sales staff. Suppliers should be pressed for better prices and businesses should strive to lower their brand's break-even points to new lows.

Understand your customer

In order to successfully weather this economic crisis, businesses should better understand the “recession psychology” of the market (Quelch and Jocz 2009). It is possible to segment the behavior of end-consumers and business customers based on their reaction to the current crisis or their “state of mind”. There are five possible types of behavior. Those whose financial state has been affected by the current crisis and who are barely making ends meet are the “Survivals”. The “Unaffected” are those who were not affected either financially or emotionally. The “Emotionally Affected” were not affected financially but are worried that they are going to be affected. The “Optimistic” are those that suffer some financial difficulties, but feel that “it is going to be ok” and they can still maintain their current lifestyle. The “Long-term Affected” are those whose current income was not affected but the value of their assets has declined.

The “Survivors” and the “Emotionally Affected” will probably reduce their consumption. The “Not –Affected”, the “Optimistic” and the “Long-Term Affected” are probably not going to change their consumption behavior. While each segment may need some different marketing solutions, all will probably appreciate businesses that help them reduce risks. Cavender and Rein (2009) suggest that in China, consumer optimism (the “Optimistic”), a growing middle class, the superrich (the “Not –Affected” or the “Long-Term Affected”) who are still willing to spend, and government efforts to boost the economy will all contribute to a growing demand for luxury goods.

Quelch and Jocz (2009) suggested another way to segment the market. They offer four segments base on the consumers’ response to the current crisis. The “slam-on-the-brakes”

segment feels most vulnerable and reduces all types of spending. The “pained-but-patient” consumers tend to be optimistic about the future but are now worried and have cut their spending. The “comfortably well-off” segment feels secure about their ability pass this current crisis and they continue to consume but more selectively and less conspicuously. The fourth segment is “live-for-today” and unconcerned about savings.

Use data base marketing

Data base marketing will help a business increase the amount of its product it sells to its customers. Through analyzing relevant data, a business can find its best customers and understand the reasons for their purchasing preferences. Similarly, "look-alike" customers can be found and approached in the same way (Chapman 2009). Once their characteristics have been examined, new products and solutions may be offered that will better satisfy changing needs. This strategy will be more useful for B to B than B to C, unless, the business has inexpensive ways of communicating with end-users such as is the case with credit card companies, banks etc. that communicate with their consumers on a regular basis.

Build the value of your brand

Consumers are buying brands not just products. They are asking themselves “What can this brand do for me? Will others view me using the brand?” Businesses that invest in brand awareness and recognition will gain the most rewards in this crisis. Customers do not stop buying; they only look for the best value for their money. Also, less willing to take risks associated with unknown or new brands, they prefer known and established brands. West (2008) suggested that businesses focusing on bigger brands will gain the most return for their investment.

In contrast to Crane's suggestion to (2008) “Re-brand Yourself” it is not recommended for businesses that have solid reputation to launch a new brand name and logo. It is, however, recommended that businesses renew and update their brand, but with relatively minor changes. Creative marketing communication can be used to make the brand more relevant and exiting.

The importance of the brand reputation in the economical crisis may be seen in Kim, Lado and Torres' (2009) research in the Uruguayan market. Their research shows that compared to the pre-crisis period, during the financial crisis the credence attributes of the brand are more important than the search attributes. They also found that the post-period analysis indicates a reversal and greater importance of the search attributes that were important in the pre-crisis period. These results suggest that the value of the brand is important and strong brands that provide greater credence may survive and even grow during the crisis at the expense of weaker brands.

Improve marketing relationships and human interaction

While marketing relationship is important in normal times it is crucially important during times of crisis (Weiss 2009). Consumers (current clients and prospects), suppliers, employees need support and the human touch in a crisis. Marketing relationships mean continuous communication, contacts, listening and providing support. As noted by Crane (2008) “In

troubled times, you can't have too much communication". All have insatiable appetites for information about how to cope with the crisis, personally and in the marketplace and also what are the prospects for the future. Businesses should partner with suppliers, customers and employees in a variety of ways to get their trust, confidence, cooperation and loyalty. The effort to be invested in such activities should be related to the "life-time value" of the customer/supplier/employee to the business. Relationships at the business level should be planned and managed.

Re-evaluate product offerings and revenue management

Identifying revenue and profitability sources within products lines and businesses may provide an opportunity to increase profit (Garrow and Ferguson 2008). Leveraging such opportunities with additional offerings may increase a business' share of the customer purchase but also the market share. In addition, "back to basic" products and services (Weiss 2009) will fit the needs of the "Survivals" and the "Emotionally Affected" segments which want inexpensive, private brands. In the United States and Europe, private brands are growing and research shows that consumers switch more extensively to store brands during bad economic times and then switch back to national brands in a subsequent recovery (Lamey, Deleersnyder, Dekimpe and Steenkamp 2007). Other may continue to buy the same products but will be happy to get a better price.

Better pricing strategies

Pricing strategies in an economic downturn are different and should deliver value (sometime different values) to different segments of the market (Garrow and Ferguson 2008). Pricing strategies involve the price of the product but also associate costs (like handling, delivery and supplementary products that must be purchased), terms and method of payments. While sales promotion may be good strategy for all segments, the "Survivals", the "Emotionally Affected" may need lower prices and better credit even for somewhat less valued products. Smith (2008) argue that "Convenience, novelty, and indulgence are cut right away. But quality and service are more precious. These are the last things consumers are willing to trade off on to economize". While these may be correct for the "Emotionally Affected" it may not be correct for "Survivals" who now need now inexpensive products with less service and which may be not as convenient to purchase.

Other segments may want to feel that the seller is doing something for them by providing higher value for the same price, supplementary products for a discount or a bigger "package deal" for a better price. Seifert and Seifert (2008) suggested three strategies in extending credit to customers. The first, "Win-win", uses trade credit to broker advantageous capital access to supply chain partners or reduce outstanding days to eliminate unnecessary costs. The second strategy, termed "Followed", offers industry-standard terms to attract customers and uses trade credit to attract additional customers' once sales slowdown. The third strategy, "Squeeze", requires asking customers for direct payment or uses discount schemes to speed up payments and to negotiate long payment delays with suppliers.

Use efficient marketing communication

Hudak (2009) argues that ideally, companies should increase their marketing budgets during an economic downturn to obtain an advantage over their competitors in both brand awareness and market share by expanding, or at least maintaining advertising levels. As suggested before, businesses should cut cost but continue to invest in their brands. Nevertheless, investing in brand awareness and promise require advertising. If a business advertises, proactive ads may derive more benefits and better response than regular ads during times of recession (Srinivasan, Rangaswamy and Lilien 2005).

In crisis times, this investment should be shifted from television ads to more measurable and direct channels (West 2008) such as on-traditional media (Web sites), online social networking and the sales forces (Court 2009) with an emphasis on public relation (Pannunzio 2008) and guerilla marketing.

The Web is powerful and relatively inexpensive marketing tool. It can be very advantageous to marketing efforts in times of crisis in many ways. A **Website** that provides information about the business and its offerings, may sell online. **Search engine optimization** can improve search rankings and generate more site traffic. **Online Research** can be used for regular customer feedback, customer satisfaction surveys, and other marketing research projects. **Online ads** enhance brand awareness, perception and recognition. An interactive ad is a powerful ad that provides "two-way communications". **Blogs** can be used to post product updates, to publish press releases and other information and to answer customer queries and complaints. **Online video and picture libraries** using YouTube.com and Flickr.com are some of many sites that can be used for posting products/projects videos and pictures to promote a business brand.

Public relation using press releases and other activities are more credible than ads. And they get published free of cost. They are the best and most effective way to announce new product launches, business achievements, and other announcements. In recession people tend to stay at home, spend more time watching television, reading newspapers and magazines, and surfing the net. To capitalize on this opportunity, businesses should remain proactive and continue their public relation activities (Pannunzio 2008). However, press releases must be made newsworthy and interesting to the general public or else no one will publish or read them.

One of the expenses that should not be cut is the **sales force**. It is not easy to find experience sales personnel. The investment is too high to let the good ones go. Create new sales programs and use the sales force in to improve marketing relationships and for new tasks such as telemarketing, Web communications and sales can lead to more sales and for guerrilla marketing (Court 2009).

Guerilla marketing is one of the most suitable marketing tools in time of financial crisis. The goal of guerrilla marketing is to engage consumers in order to create memorable and exciting brand experience. "Guerrilla marketing is an unconventional system of promotions that relies on time, energy and imagination rather than a big marketing budget. Typically, guerrilla marketing campaigns are unexpected and unconventional; potentially interactive; and consumers are targeted in unexpected places. The objective of guerrilla marketing is to create a unique, engaging and thought-provoking concept to generate buzz, and consequently turn viral." (From Wikipedia).

CONCLUSION

Cutting marketing budgets may not be the best solution to cross and the current financial crisis successfully. As this paper demonstrates, marketing strategies may prove more helpful. The ten strategies suggested here are based on three basic principles. They do not require much capital (such as using the Web, public relation or guerilla marketing); they cater towards the needs of the supply chain (segmentation, product and price strategies, marketing relationships or data base marketing); and they build the reputation of the brand (planning with flexibility, wise marketing budget or building the value of the brand). Using these and similar principles may help generate more marketing strategies for the unstable, challenging, and often difficult times that we are now experiencing.

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THE EVOLUTION OF NEW CONSUMER ROLES IN BRANDING

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Purpose: This paper provides a contribution to the subject of the relationship between brand and consumer, with the particular objective to develop understanding of the social trends that determine the brand behavior of consumers, and the increasing role that brand plays in the socialization system.

Design/methodology/approach: Based on an interdisciplinary literature review a number of conceptual frameworks depicting the chronological evolution of the brand- consumer relationship have been developed. Due to a perceived very high level of compatibility of research objectives the frameworks have been validated by a qualitative research conducted in Cyprus. The research presents the results of interviews and focus groups with marketing management of Cypriot companies and with potential Cypriot brand consumers. The research aim was to investigate and conceptualize the relationship between brand-, consumer behavior and the socialization system in Cyprus, which might influence corporate branding strategies.

Findings: The research provides an adaptation of a conceptual framework proposed in order to demonstrate that the relationship between brand and consumer, overall to island populations, cannot be separated from socio-demographic (age, gender, income, education) and cultural categorization (collectivistic and/or individualistic) factors.

Practical implications: The precedents arising from the study carried out in this paper provide academic and practical suggestions for segmentation, targeting and positioning in order to develop and strengthen the relationship between brand and consumer.

Originality/value: The paper sensitizes readers to develop careful considerations about the difficulty to identify the social and cultural factors (individualistic and/or collectivistic culture, sense of belonging, etc.) influencing the postmodern consumer. Based on the description of the chronological evolution of the relationship between consumer and brand/firm an innovative conceptual framework is provided differentiating consumer roles by the strength of the relationship to the brand. The elicited strongly normative implications of the socialization system suggest differentiating brand and consumer behaviour related theory as to island populations.

Key words: Branding, social identity, symbolic consumption, Cyprus

RELATIONSHIP DYAD: ATTRACTIVENESS

In recent years many consumer behavior researchers and practitioners have elaborated on the relationship between the "self" and consumption, seeking to study the trend of the individual to consume products not only in accordance with functional utility consumption but also, above all, driven by symbolic significance. According to these studies, individuals actually employ consumption both to take advantage of the technical function of the product and to create and support the "self", understood as a connotation of self-esteem and image towards other individuals (Turker, 1957; Turner, 1982; Schlenker, 1986; Brewer and Gardner, 1996).

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To this end, scholars of the theory of *self*-concept in the middle of the last century sustained that a definition of consumers should entail a reference to the meaning the products have for them and the implicit consumer attitudes towards the products (Tucker, 1957). Later on Grubb and Grathwohl (1967) expanded on the self-concept in that:

1. Self-concept is of value to the individual, and behavior will be directed toward the protection and enhancement of self-concept.
2. The purchase, display, and use of goods communicate symbolic meaning to the individual and to others.
3. The consuming behavior of an individual will be directed toward enhancing self-concept through the consumption of goods as symbols.

Following this thread of study, in particular from the perspective of self-esteem, the school of symbolic interaction also sustains that the consumer will be motivated to look for a positively valued product to maintain a positive self-image. Therefore, they argued that once an individual decides which image to express in the social situation, she looks for ways of expressing it. Hence,

the product is one means by which an individual can express the self-image (attitudes, perceptions, feelings) that she/he wishes others to associate with her/him.

These studies, contextualized in the study of marketing, have revealed the importance for consumers to create relationships with the firm/brand in order to building the self-concept (Rosenberg, 1979).

In the ambit of the sources cited above, the individual, by means of the informative, symbolic and emotive characteristics of the brand, develops a cognitive/perceptive system by which to choose the product/brand most useful for her/his own self-concept. In consequence, businesses use their product/brand to achieve a competitive advantage.

On the basis of these observations the consumer evolves, due to the role of the brand, from being a passive subject in marketing, resulting in stimulation of mere commercial transactions, to being an active subject in the context of relations with the firm. In the context of this evolving process in terms of the relationship between firm and consumer, the brand no longer represents a simple "name, term, sign, symbol or design or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors" (American Marketing Association in Kotler and Keller 2006, p. 274), but rather, a partner of the relationship with the consumer, to the extent of playing an essential role in the dyadic condition of the relationship (Keller, 1993; Fournier, 1998).

The need for the creation of relationships, to the detriment of 'dry' transactional links, is the fruit of continued search on the part of the individual for a semiotic feature which first defines the identity and then the values to be communicated to others. These consumer needs have stimulated businesses towards humanization of the brand, evolving it so as to invoke values, cognitive characteristics and social emotions with the result of allowing the individual/consumer to recognize these in themselves and to perceive themselves as a partner due to the employment of a series of social dynamics (Granovetter, 1985; Rao, et al., 2000).

On this subject, one is reminded of Apple, a company that has always produced products which express their potential in their interaction with the individual. In fact, Apple computers were the first to overcome the pure logic of their function, expressing instead an aesthetic and sensory role so strongly that they became a 'cult' in modern interior design, passing from being a grey box to an object of design, even when switched off. Beyond this, the Apple product has been established as being a part of the life style of the individual/consumer, and has always centred its production on the individual, favouring the expression of 'I'. It is not by chance that Apple has used the 'I' prefix when naming its products – the I-pod and I-phone.

The evolution described above has led researchers and practitioners to develop a dual consideration on the meaning of brand and on the concept of relationship. Consequently, brand can be seen as a combination of perceptions regarding information, values, and emotions collocated in a consumer's mind. The concept of relationships is, on the contrary, the expression of reciprocal changes and social adaptation both for the firm and for the consumer (Sirgy, 1982; Holt, 1995).

So we can argue that the concept of relational reciprocity, described above, is useful to reveal the dyadic nature of the consumer-brand relationship.

The consumer therefore, via the brand, achieves social aims such as self-esteem and consensus in the context of reference. To create value, the firm on the other hand plans, modifies and adapts its tactics and marketing and communication strategies on the basis of the attitudes and needs of the individual who recognizes the brand as a social partner reflected in the case of Apple.

The relationship between the consumer and the brand, therefore, is the expression of a systematic relationship whereby the business and the consumer, to reach their respective aims, use a general symbolic communication media (Luhmann 1988, p. 68).

On the basis of these trends, businesses no longer produce products and/or services to satisfy consumer needs but to generate the social consequences which individuals are searching for.

The dyadic consumer-brand relationship, as is depicted in Figure 1, expresses the conditions in which the consumer, in the phase of observation and valuation, perceives the brand as a transducer – a transmitter and transducer – not only of information, values and emotions but also of the capacity to withstand evolution and social roles.

In this phase the consumer, in the constant search for personal identity, assumes the status of evaluator and *browser* of the brands that compose the market, in order to identify the brand or brands capable of expressing a language in line with the benefits sought by the individual.

The meeting point between the research of the individual and the brand characterizes the phase of compatibility, in effect a common language which signals reaching a condition of consonance of identity, thanks to a state of attractiveness between the consumer and the business.

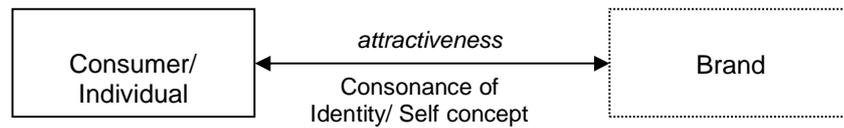


Figure 1: Conditions of Consonance of Identity

As we will see from the results of the research, this condition reveals the role of the brand as a vector of the identity of the individual/consumer in the context of reference.

RELATIONSHIP TRIAD: IDENTIFICATION

The individual, by means of the state of attractiveness developed in their dealings with the brand, identifies this as the means to develop not only their own self-concept but also their identification within the group, tribe or community, created on the basis of a shared passion and/or emotion (Maffesoli, 2004).

Both, researchers and practitioners on this subject sustain that the individual/consumer is no longer in search of the value of using the product or service but of the linking value of that product or service (Cova, 2002).

This trend signals the culmination of the evolution which began as the brand being understood as a distinctive sign of the product, and has reached the point where the brand is seen as a means of achieving strong social links. This contribution from firms towards the creation of a social system has caused a provocative re-evaluation of the traditional terms used in disciplines from marketing to society (Fabris, 2008; Visconti, 2006).

The product/brand, therefore, contributes to realize relationships through the attractive components which surround it (Bauman, 2001; Fabris, 2008; Maffesoli, 2004).

In this phase the brand widens its function, evolving from being a partner to the individual/consumer in the identity/self-concept phase, into being the marketplace around which and by means of which groups are created and evolve, concluding in social identification for the individual (Bhattacharya and Sen, 2003).

The identification of the individual with a group expresses, therefore, the degree of perception of self both as an individual and as a member of the group, in relationship with other group members and with the firm/brand. This further level of perception is developed on the basis of sharing the relevance – functional or symbolic – of specific aspects of the product/brand with other members, based on the process of emulation of individuals considered to be opinion leaders (Dutton and Celia, 1994).

This condition, therefore, satisfies the double need of the individuals to develop their self-concept and their identification with the social group to which they belong (Mael and Ashforth, 1992).

Reaching this condition is demonstrated by means of creation of the sense of belonging on the part of the member in their dealings with both the group/community and with the firm/brand.

On this subject, researchers and practitioners are circulating the definition of brands as love marks, based on the concept of brand as an expression of emotional ties between members of groups, no longer irreplaceable but irresistible. Examples are provided by the numerous communities which arouse around specific models of cars or motorbikes, such as Mini, Harley Davidson and others (Robertson, 2007).

The phenomenon of identification belonging to the theory of social identity represents the evolution of consumer-brand relationship from dyadic to triadic individual/consumer-brand-individual/consumer/ member of a social group that is shown in Figure 2.

In this context the social group or brand community can be interpreted as a social aggregation of members, the expression of a specific cultural capital and their relationships based on the brand considered a warehouse of meaning (Maffesoli, 2004).

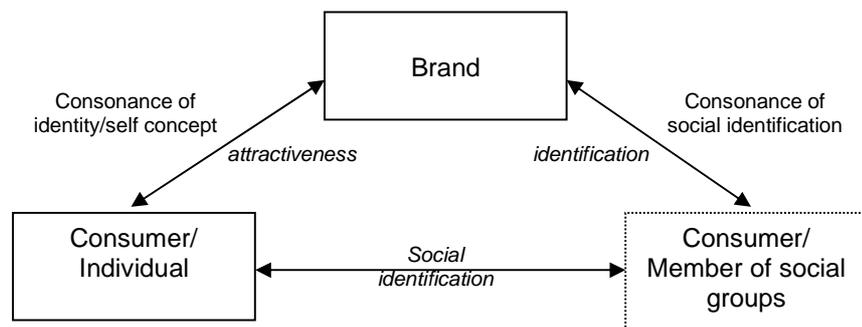


Figure 2: Conditions of Consonance of Identity and Identification

In support of the above, scholars of the theory of social identification (Turner, 1982; Mael and Ashforth, 1992) maintain that identification, in the sense of the aim of an individual/ consumer/ is, above all, a perceptive and cognitive construct. They further sustain that, identification being a condition in which the individual brings into being relational attitudes and comparatives with other individuals, in this phase the individual prevalently tends to contextualize this identity in the environment of social reference.

To achieve identification the individual needs to perceive herself/himself as psychologically linked to the destiny of the group, but above all to perceive a state of distinctive values (evoked by the firm by means of symbols and behaviour) and group practice differing from that of other groups.

In confirmation of the above, it usually happens that the individual identifies with the group either by way of emulation of an opinion leader (a famous person who evokes the distinctiveness of the brand, or an individual attractive to a social group) or by attraction towards the brand (one thinks of the frequent cases of retro-marketing, in which products re-evoked a deeply rooted background, as is the case with the Fiat 500, the Mini Cooper, the VW

Beetle, Chuck Taylor All Star sneakers, and others) (Brown, Kozinets and Sherry, 2003). In both cases the individual expresses the characteristics of an emulator or mingler.

RESONANCE THROUGH COMMITMENT

The dynamics described above, other than the state of attractiveness and the sense of belonging (identification) to the group, cause the individual to feel a state of obligation or commitment, a rooted interest and a sharing of objectives, as much with the group as with the business, and in this way to seek to contribute to success: this condition of relationship can be defined as resonance.

The condition of resonance represents the evolution of the triadic relationship, in which, by way of the commitment factor, the individual in the ambit of the group in which they have found social identification develops a strong awareness of belonging and a respective sense of moral responsibility in their dealings with the group and with single members, so much so that they put into place suitable behaviour towards reaching the objectives of the group and/or the business (see Fig. 3).

The condition of resonance is verified, if the conditions of consonance, identity and identification are protracted in time, due to the frequency of the relationships and the quality of exchange of information, both emotive and cognitive. Further, on reaching this condition a progressive development is put into practice which allows, in its turn, the gradual blurring of boundaries between firm and consumer, as shown in Figure 3. Consequently, achieving this state of resonance is the expression of reaching ever greater levels of sharing and trust on trends and perspectives (McAlexander, et al., 2002; Ahearne, et al., 2005).

From the point of view of marketing studies, such display by consumers represents a net change in the role of firm/brand which, from the pole of the relationship with the consumer evolves into support for the links/relationship between consumers.

The consumer/member, being aware that the firm/brand can help in the building of a social identity, shares the aims of the firm to the extent that he/she participates in decision making concerning products and communication.

The case of Ducati, for instance, saw the firm propose a model of motorcycle with a single disc brake. However, the members of the community opposed the plan and had the entire braking system changed to dual disc brakes.

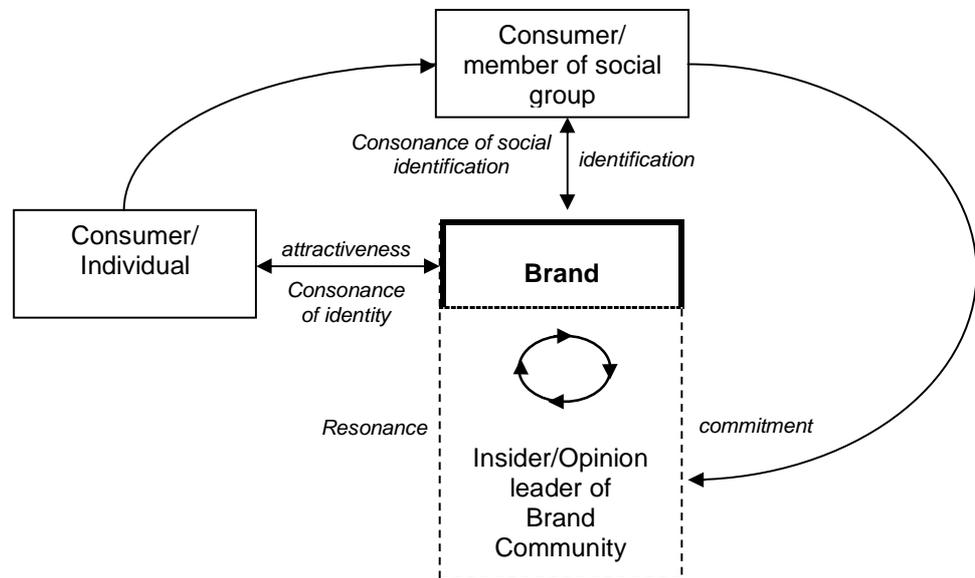


Figure 3: Conditions of Resonance

This participation, which often materializes as extreme loyalty on the part of the consumer towards the entire business organization, finds effective representation in the willingness not only to accept new products or a brand extension, but also to involve new members in the community and, furthermore, to support and sustain the firm in moments of crisis.

From the moment in which the consumer becomes an active member/insider of the brand community, the latter, by effect of the two step flow theory, becomes an efficacious sounding board of the firm/brand. In other words, it becomes a spontaneous communication tool activating word of mouth, both on and offline, encouraging new "fans" or, even, defending the reputation of the brand from judgement on the part of members of communities of brand competitors.

In this situation the consumer sees his position evolve from simple member, joined in the social group, that we called mingler to molecular opinion leader to insider (Katz and Lazarsfeld, 1955; Kingdon, 1970; Confetto, 2005).

The social evolution of the consumer /individual, from browser to opinion leader, is illustrated by means a conceptual framework in Figure 4.

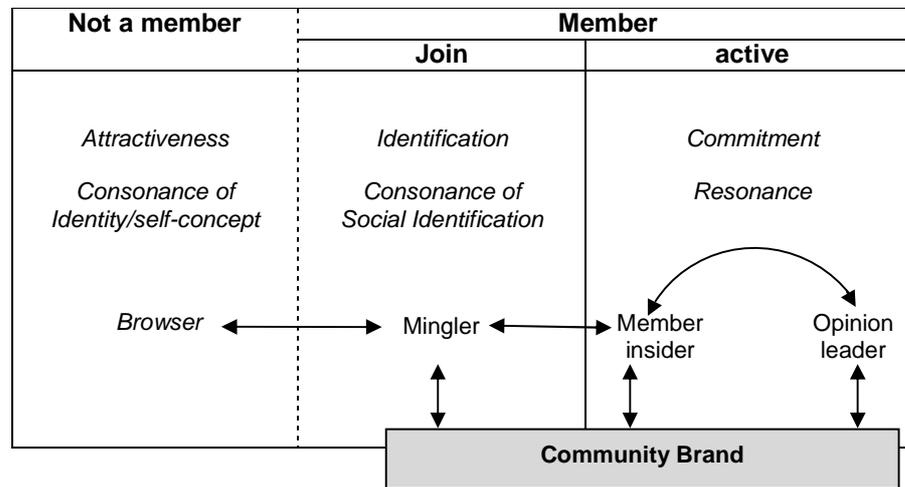


Figure 4: Conceptual Framework of Social Consumer Evolution

New technologies also contribute to the proliferating of the community brand. A tool initially blamed for causing the alienation/isolation of the individual, is proving itself as the “territory” on which to create the community (Algesheimer, et al, 2005).

The social aspect of the consumers in their relationship with the brand, the spontaneous growth of social groups and the role of the consumer within these groups are always the centre of attention for researchers and practitioners, who seek to adjust the planning of marketing and communication towards a less traditional, “murk” or “non conventional” approach (Muniz and O’ Guinn, 2001; Bagozzi and Dholakia, 2006).

RESEARCH METHODOLOGY

This paper resulted from a research co-operation with the intention of cross-validating the mutual research findings. Due to a perceived very high level of compatibility of research objectives the developed frameworks (see also Siano and Basile, 2009) have been validated by a Cyprus case study conducted in 2008 (Kitsios and Kaufmann, 2009).

Due to its idiosyncratic political and economic development, Cyprus might be considered a unique case. Cyprus was conquered by a variety of international powers who wanted to capitalize on the strategic position of the island being ideally strategically located at the crossroads of the three continents of Europe, Asia and Africa. The Turkish invasion in 1974 divided the country, and the economy had to shift to new industries, mainly tourism to survive (Maital and Pierides, 2003). However, after this tragic event an impressive increase in GDP occurred and the Cyprus economy boomed by double digit growth rates between 1976 until 1995 and more moderate, by single digit growth rates thereafter up to a level of 14.317,57 mio Euro in 2006.

This unique political, economic and cultural background might imply unique aspects of consumer behavior be it consciously or unconsciously (De Mooij, 2003). The research aim was to investigate the underlying reasons governing consumer behavior of Cypriot consumers as to branding applying a qualitative research approach focusing on the why and how of decision making. A need was perceived for smaller but focused samples (Denzin and Lincoln, 2000).

The research objective was to investigate the concrete factors of brand related consumer behavior of Cypriots which might inform corporate branding strategies. The derived research question was if symbolic consumption and the other notions on identity and self-concept described in the literature review above might be determining factors of consumer behavior as to branding in the age group 25 and 40. Purposive sample was chosen as the sampling technique as it is regarded as useful for situations where the researcher needs to reach a targeted sample quickly and where sampling for proportionality is not the primary concern (Trochim, 2006). As to subcategories of purposive sampling, expert sampling and quota sampling were applied.

Expert sampling was used for two reasons: first, the specific strategic and operational knowledge of experts representing a variety of categories of status revealing products, such as technology, fashion, cars, mobile phones or cosmetics; second, expert sampling might provide evidence for the validity of another sampling approach chosen. Hence, 8 interviews with marketing managers were conducted on their perception and capitalization of symbolic consumption.

As a second sampling method for two focus groups with respectively 7 potential brand consumers aged between 25 and 40, proportional quota sampling was applied to assure a proportion of respectively 50% female and male participants.

Due to the perceived uniqueness of the Cypriot setting the research method of a case study was chosen where a focus on a limited number of cases (direct observation and systematic interviewing) allows for a holistic, in-depth investigation eliciting rich information (Feagin, Orum and Sjoberg, 1991; McNamara, 1997). As a qualitative research technique the focus group was applied to uncover, possibly surprising, information by an interactive group setting where participants are free to talk with other group members (Rushkoff and Douglas, 2005).

Moreover, focus groups are a powerful means to test new ideas or assumptions. As a structural guideline for conducting the focus groups McNamara's (1997) suggestions were applied. The qualitative data were analyzed to elicit meaning and symbolic content (Seidel, 1998) and to specify the presence of certain words or concepts using content analysis (Neuendorf, 2002).

CYPRIOTS AS EMULATORS/MINGLERS (SEE FIGURE 4) BASED ON THE DESIRE OF SOCIAL ADVANCEMENT AND THE PREFERRED LIFESTYLE ATTACHED TO IT

Five of the marketing managers (KCT, PAM, XST, DGM, and LFT) confirmed the influence of the group, where the consumers want to become members of, on brand consumer behavior. One possible reason was provided in that people have the need to belong to a social group and to advance socially. Therefore, they are more likely to modify their behavior according to the preferred group conditions compared to that group they are already belonging to.

PAM said, "Indeed, people may change their buying behavior so as it is the same as the one of the members of the group that they want to join in order to be accepted". Similarly, LFT said that "people whose goal is to move socially upward believe that, by exhibiting the behavior they believe their target group has, the transition to that group will be easier and smoother since they will be accepted faster".

The statements of the marketing managers were confirmed by ten out of the fourteen members of the focus groups. XPM, confirmed by the majority of the focus group members, stated that he copies the extravagant consumption patterns of his colleagues at work in order to be accepted by them. He said: "I had to start behaving as they did and buying the same expensive things as they did, so that I could join the group and be part of the team".

Accordingly, the preferred group's influence is regarded as a dominant factor that influences symbolic consumption, but there were some variations in their answers. EJJ, APF and ATF, three women in their 30s, as well as PPM, a man in his early 30s, who have very similar demographic characteristics since they currently belong to the middle class differentiate according to age. They said that when they were younger, at school and at college, the most influential group for them was the group that they wanted to join. Now, this group is still influential but not to the same extent.

That is probably because young people always want to be in the group with the most popular people and, thus, conform to their buying behavior in order to be accepted into the popular group. Concordantly, EJJ said: "I remember when I was in school and at college that I used to buy the same things as a specific group of popular girls so that they would accept me as a friend, but this reduced as I got older". APF agreed by stating: "Something similar has happened to me, too. I can also say that this happens more when you are younger".

Thus, it is obvious that age plays an important role as to the extent of adaptive status orientation.

THE RESONANCE STAGE (SEE FIGURE 4) IS NOT YET ACHIEVED

These and the following findings imply that the brand related consumer behavior seems to be exclusively based on the desire for social advancement and the preferred lifestyle attached to it rather than on an underlying common passion for the brand and its embodied values as Maffesoli (2004) or Cova (2002) stated in the literature review. All marketing managers who were interviewed unanimously agreed that lifestyle and, to be more precise, the lifestyle which people would like to have is a very important determinant of the buying behavior of Cypriots. PPT said that "if we want to achieve a certain status that has a certain lifestyle attached to it we start modifying our behavior, especially our buying behavior in order to suit that lifestyle and the people who have already achieved that lifestyle". In their opinion, Cypriots tend to buy products that represent the lifestyle that they would like to emulate. Thus, the symbolic meaning of these brands is the lucrative lifestyle, social position and status.

To be more precise, six marketing managers said that lifestyle is one of the greatest determinant factors, because people seek membership into these groups in order to achieve their goal of moving socially upwards and enjoy the lifestyle that these people are enjoying.

Interestingly, the responses of six members from both focus groups were very similar to the answers given by the marketing managers.

The focus group members said that lifestyle is one of the most important determinants and provided a similar justification: "Most times, people do not want to join a group because of the group members but because of the social position of the group members. Sometimes, the lifestyle of these people is what attracts us to them rather than the group members themselves" (OKM, IPF and AIF).

These latter statements strongly imply that Cypriot consumers can be perceived as emulators/minglers but that the stage of resonance is not achieved due to a lack of psychological link with the desired social group which would be based on common values. This is confirmed by IPF who said: "I think that we all have the need to socially advance. Some people in Cyprus, however, overdo it. I know many people who have no credentials or education but act and buy things like millionaires in order to be accepted in a higher status group". It might be concluded that Cypriots want to change their identity by their brand purchases in an attempt to either advance socially or to join a group with a higher status.

However, the sustainability of this newly created identity might be questioned as it is not based on the change of a value system or moral growth. Four of the marketing managers confirmed this view: "They are people who achieve their identity without having the actual qualifications for that identity through their wealth that is visible from the products that they buy" (KCT). Similarly LFT said: "You can see more extreme symbolic purchases from them rather than from those who are already members of the target group since they are trying to adopt the identity of that group without really deserving it most of the times".

Ten out of the fourteen participants in the focus groups agreed with the statements of the marketing managers: "We try to impress the group's members by adopting an identity that might not really be our own, so that this group's members will accept us" (IPF). Similarly AIF said "Many times we try to advance socially by adopting an identity that other people who belong in an upper class have, so that we can be friends with them. We usually do that by buying the same things that they buy".

POSSIBLE IDIOSYNCRATIC REASONS FOR NOT ACHIEVING THE RESONANCE STAGE: NORMATIVE REFERENCE GROUPS, SHOW OFF BEHAVIOR, SIZE OF THE COUNTRY, GENDER, WORK ROLE, MEDIA

The following findings reflect a very strong normative character of comparative and/or identification reference groups not referred to so far which consumers perceive as a pressure to conform. Seven out of the eight marketing managers interviewed (PAM, PPT, KCT, DAS, PAP, DGM, XST) held that Cypriots like to show off their wealth to an extreme. This would make them engage in symbolic consumption and buy branded goods that signify wealth. PPT, in this context, said: "In my opinion, everybody shows off in Cyprus. Sometimes it goes beyond the limits as it becomes some kind of a competition between neighbors, for example". Similarly, half of the participants in the focus groups agreed with this statement. This is reflected in statements as: "we are all show-off maniacs in Cyprus and this is the main reason that we buy branded things" (PPM); or: "In my opinion it is a kind of competition between most Cypriots. The winner

is the one who shows off the most expensive and luxurious material goods" (IPF). It is very interesting that this informal "competition" was mentioned by both, the marketing managers and the consumers. A possible reason for this might be the small size of the society, population and geographic area of Cyprus as almost all marketing managers mentioned it. XST is quoted: "Because we live in a very small society and everybody wants to show off their wealth and social position". This is confirmed by another interviewee: "When you live on a small island like Cyprus where everybody knows everybody's business you feel you are under pressure to look your best and because women in Cyprus tend to talk and to show off a lot, you feel you are not performing well if you are not dressed in designer clothes". This is confirmed by a manager of a boutique stating: "if you look at the Cypriot women's magazines there is a huge difference. Women are pressurized into buying expensive clothes; if you don't then you are cheap" (Cyprus Mail, 2006, p. 2).

Some of the participants in this research linked the preferred life style and normative group influence to the job role. Summarizing, they said that Cypriots adopt an identity which is in accordance with their job or work environment and work group. One of the marketing managers mentioned: "There is a group of people who consider their jobs to be managerial; they buy a mobile that suits their position" (XST)

Four participants in the focus groups gave a similar explanation. XPM said that groups are influential but for him the most influential group is the group of people with whom he works since he had to modify his behavior and buying behavior in order to fit his new work environment and be accepted by his new colleagues as a member of the team. OKM echoes this view: "an equally important factor that influences our buying behavior is our job and work environment. If you are an accountant, a doctor, a lawyer or a bank employee, you are expected to wear a nice suit and drive a nice car".

In addition, the media were regarded to exert a normative influence. Two of the marketing managers said that television is a very influential factor since it sets standards with which people must comply: "In my opinion what influences Cypriots is television, the stupid box, which dictates certain standards of behavior to the society that if someone does not comply with, he becomes alienated from the rest" (PAM).

Ten out of the fourteen participants in the focus groups agreed on the normative role of the media: "I think that actually we are influenced by TV and other media that expose these famous people" (EJF).

The previous findings suggest a low quality of exchange of emotive and cognitive information between the groups which, according to the literature review is regarded a precondition for the development of resonance based on enhanced levels of commitment, sharing and trust.

CULTURE AS THE REASON TO EXPLAIN THE GROUP NORM AND TO DIFFERENTIATE BRAND RELATED CONSUMER BEHAVIOR

When trying to explain the underlying reason for the brand related behavior reflected in the last paragraph the concept of culture seemed to be necessary to be included in the discussion. The following definitions imply a certain extent of unanimous and patterned reactions of members of a given culture to marketing stimuli. Culture has been defined as the “interactive aggregate of common characteristics that influence a group's response to its environment” (Hofstede, 1980), or as the “collective programming of the mind which distinguishes the members of one group or category of people from another”(Hofstede, 1997). Referring to cultural dimensions (Hofstede and Hofstede, 2005) governing the respective people’s behavior (individualism vs. collectivism, masculinity vs. femininity, power distance, uncertainty avoidance, long-term vs. short-term orientation), Lustig and Koester (1999) reason cultural differences primarily by the individualism vs. collectivism category which emphasizes conflicting views on the nature of humans and society and the underpinning relationships. The following more detailed description by Samovar and Porter (2001) referring to Hofstede points to the applicability of branding in both, individualistic and collectivistic cultures. Whereas, in an individualistic culture, people are symbolized by numerous features believing that they are unique in society and, hence, emphasizing personal preference and competition rather than a co-operative social setting, the needs, views, objectives and, even emotions of the people in a collectivistic culture are conditioned by the group.

Conclusively, in individualistic cultures, branding might account for individual preferences by segment specific life style positioning and, in collectivistic cultures the consumption of well known brands might be regarded as constituting a group norm.

Even though most Western societies are considered to be individualistic societies, there seems to be a high degree of collectivism regarding the consumer behavior of Cypriots which is in line with the emphasis on the personalization aspect and the strong normative character of comparative and/or identification groups. People seem to feel conditioned in their brand consumer behavior in order not to be considered to be different.

The statements imply that Cyprus might be considered to emphasize personalization as a reflection of a being orientated culture rather than de-personalization as a characteristic of a doing orientated culture (Usunier and Lee, 2005).

Four of the marketing managers agreed on the significance of collectivism influencing the consumer behavior of Cypriots. Thus, since most are status oriented, the rest tend to copy this behavior: “We know that people are watching us and making comments. The issue is not the personal mentality but the collective mentality. We are expected to behave in this way and so we do” (LFT). In the same vein, PAM stresses: “They don’t want others to consider them different or think less of them if they see them using inferior or unbranded products”.

The participants in the focus groups were more explicit in their comments confirming the findings of the interviews. Most of the 11 out of 14 who gave this as a reason said that they do what everybody else is doing so that they are not considered to be different and also to avoid negative comments. ATF said: “We buy the brands so that we are not different from the rest”.

PHM said: "Trying to avoid comments by trying to be the same with others is a reality in Cyprus. People tend to buy the same brands, go to the same restaurants, clubs or cafes and generally behave like a flock in order not to be different and to avoid becoming a target due to their difference".

CONCLUSIONS AND RECOMMENDATIONS

The study carried out in this paper supplies points for reflection on the evolution of marketing, from both strategic and operational points of view, following the identification of the three conditions of the relationship between individual and brand (attractiveness, identification and resonance) and the corresponding figure of the consumer which corresponds to different states of evolution and therefore to different targets (browser, mingler and insider/opinion leader).

From a strategic point of view, the work has revealed the social and community role of the firm which, to identify adequate marketing behaviour, brings into being an *interaction-based* approach, favouring social dynamics evaluation techniques such as network analysis and n-ethnography in the segmentation phase (Kozinets, 1999).

Brand related consumer behavior of Cypriots seems to be embedded in a national culture characterized by collectivism and personalization. Whereas culture refers more to formal role organization, the applicability of the identity concept epitomizing the spiritual and behavioral repertoire of people was confirmed by this research. A preferred social identity is regarded as the underlying driving force of brand related consumer behavior. This preferred social identity, however, is not only reflected in a sense of voluntarily belonging to the aspired group or social class, but also in a perception of a strong normative character or even pressure by the comparative and/or identification group and even the media. This normative perception, however, decreases with achieving and establishing the accepted membership in the desired group and/or social class. The preferred social identity, in line with Laverie (1995) creates the salient identity expressed by preferred identity or desired identity change, preferred lifestyle and the job role by symbolic consumption.

Finally, in a more collectivistic culture, the brand related consumer behavior seems to be characterized by an excessive 'show off' behavior and a brand selection which has to be further differentiated by gender.

Summarizing, due to the findings of the empirical research the initially conceptualized framework is suggested to be further differentiated by culture, age and gender, as is shown in Figure 5.

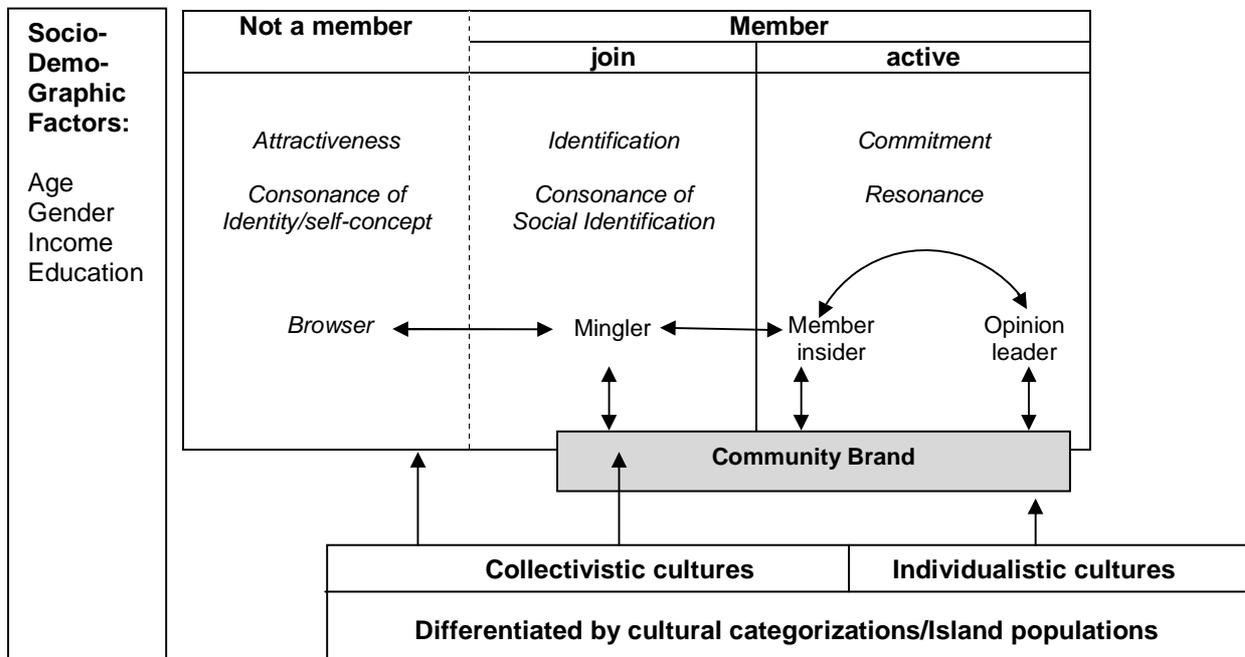


Figure 5: Adaptation of Conceptual Framework

From the marketing operative point of view, the constant research into the self and social relationships on the part of the individual, as it emerged in this research, modify the application of traditional variables to the marketing mix, specifically with regard to communication, driving the firm to modify its approach to the consumer, passing from “from-to” communication to “between” communication.

Due to this evolution, firms should aim their conduct in marketing towards the creation and stimulation of interaction, both informative and emotive, with the individual/consumer and members of the community, developing networking-based behaviour in this way. This operative approach evokes the need of the firm to assimilate and to reflect the system of values of a society, in the continued interaction with the individual.

Suggestions for corporate brand strategies refer primarily to position the family and/or individual brand highly based on image, status and, in tendency, highly priced. TV advertising is recommended due to its high level of intimacy penetration and status perception. Another preferable promotional mix element to be suggested refers to event marketing, as fashion shows, executive parties and, most importantly, charity events. The use of testimonials representing the desired social identity is also recommended.

The empirical findings also imply that the brand epitomizing the linking identity value does not suffice to create a new sustainable consumer identity. This identity creation process should

be accompanied by developing new value systems and moral growth provided by educational institutions.

The limitations of the research refer to its exploratory nature. Explanatory research based on inferential statistics is suggested to validate the qualitative research and to provide for weight and direction of the factors and to more clearly differentiate brand related consumer behavior as to socio-demographic aspects, especially age.

A further limitation refers to the lack of differentiation between national and international brands. Last but not least, it is suggested to investigate possible contributions of retailing (i.e. in the sense of conative retailing), preferably in concerted strategies with academic education providers, to strike the balance towards a more individualistic, voluntary and self-determined identity development of the brand consumers considering seemingly neglected elements of identity such as character or existential identity. This would be in accordance with the underlying mission of the micro sociological/micro psychological concept of identity in the sense that the consumers should draw other social or emotional benefits from its application rather than only economic ones (Arnett et al, 2003).

This aspect coupled with the finding of normatively perceived influence of the comparative and/or identification group might be used as a starting point for research to develop brand consumer behavior conceptualizations differentiated as to small world (island populations).

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THE SOCIAL DIMENSION OF BUYING: OPPORTUNITIES RESULTING FROM NEW RETAILING FORMS

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Purpose – The objective of this conceptual paper is to study the relationship between company and consumer, focusing on the role of social actor that companies have to create, maintain or strengthen the links between the brand and consumers. In the ambit of this topic, the study aims to explore in greater depth the role played by new forms of retailing in the relationship between brand-consumers.

Design/methodology/approach -The present study *takes its starting point* from evolutionary dynamics developed from sociological and psycho-sociological literature in postmodern society: the constant search by the consumer for self-concept and social identity/identification. Subsequently, the literature analyses different new ways of retailing that support the social dimension of consumer behavior.

Findings - The focus on the social dimension of buying allows identification of the vertical branding strategy and the characterization of two different strategic options: corporate vertical branding and cooperative vertical branding. The study offers arguments in support of the function carried out by various forms of retailing and their importance both in communicating corporate values and in creating/consolidating the link between brands and consumers.

Practical implications - The precedents arising from the study carried out in this paper provide suggestions for practitioners (managers and professionals) who use retailing in order to develop and strengthen the relationship between brand and consumer.

Originality/value - The paper offers readers the possibility to understand how evolutionary dynamics of postmodern society combine with new forms of retailing in order to develop relationships between brand and consumer.

Key words: Postmodern Consumer Behavior, Vertical branding, Concept Stores, Temporary Store, Flagship stores, Franchising

POSTMODERNISM: VARIOUS SCHOOLS OF THOUGHT

This paper aims to provide a conceptual contribution with regard to the evolution of marketing and consumer behaviour, and to the relationship between brand and consumer. The study focuses particular attention on the role of social actor which brands increasingly have to impose in order to create, maintain or strengthen their links with the individual/consumer.

In the second section, the study focuses on the opportunities of new retailing forms to involve the vertical branding strategy, thanks to the evolution of marketing and consumer behaviour. In particular, lastly the study highlights the temporary store effects. It has to be considered the

most recent and innovative retailing format within those useful for the vertical branding strategy.

To this end the work is based on a presupposed concept borrowed from a social psychology principle, according to which the individual, by nature, tends to develop both their own "self" (concept, image, identity) and their "social identification" in the ambit of social groups (Turker, 1957; Turner, 1982; Schlenker, 1986; Brewer and Gardner, 1996).

Social psychology studies have contributed a great deal to clarifying the changing social processes recorded throughout the last fifty years, caused by the passage from industrialised society by way of modernism to postmodernism (Brown, 1995; Lyotard, 1982). These changes have involved every form of society, from political to philosophical, from sociological to marketing, evolving the role in society both of the individual and of institutions in general, and in particular of the business. From a social point of view the individual has evolved its role, passing from the constant search for individual differentiation and extreme utilitarian relationships, elements which characterise modernistic society, to the search for rational and unconditional individualism – that is, to a condition of constant search for the self with the outcome of making oneself noticed and distinguishing oneself from others. The postmodern individual seeks to behave towards activating a large number of autonomous choices, with the result of producing and demonstrating their own existence and their differences in respect to others. This trend, in the last twenty years, has become the basis of an important reference point on the part of marketing researchers and practitioners, relative to concepts such as extreme individualism, social mobility of the individual, the difficulty in homologation of the individual into clusters, the fragmentation of ever more ephemeral consumerism and social links chosen rather than imposed, based on the sharing of emotions derived from the symbol/brand.

The evolutionary cycle between individualism and social links has revealed the emergence of two different streams of study in the phenomenon of postmodern consumerism, one North European and the other Latin/Mediterranean.

The North European School is characterised by the definition of consuming as an act of self-definition by the consumer (Firat and Venkatesh, 1993; Firat and Shultz II, 1997). This stream of study sustains that postmodernism is the era in which the individual can and must put personal actions in place to customize and demonstrate themselves (their own existence) and their differences (Elliott, 1997). The North European School considers tribes, specific social groups, as alternative social enclaves on the outskirts of society (Firat and Dholakia, 1998). These considerations have caused two important aspects to emerge from postmodernism: (1) the individual evolves as sovereign subject at the centre of marketing activities, participating in the personalization of its world, of its image (its symbolic system), providing input, living direct experiences and expressing fragmented modes of being; (2) consuming, from a natural economic transaction, becomes the principle form of language by which the individual communicates their own identity to themselves and to others. In this respect Firat sustains that:

"The postmodern consumer recognizes that they are not just a consumer, but a customizer and a producer of (self-)images at each consumptive moment" (Firat et al., 1995).

These aspects clearly show the emergence of the new figure of the consumer which no longer represents a segment/destined target of products and services, fruit of an un-natural correspondence with the firm/brand, but evolves and becomes a co-producer of experiences, of symbolic significance in the creation of fragmented and fluid self-image (Bauman, 2005). These changes weaken the validity of traditional marketing concepts and tools, such as segmentation and analysis of positioning (Blattberg and Deighton, 1991). They make it necessary to carry out more active/participative analysis (interaction based), conducted with tools like ethno-sociology and/or network analysis.

The new trends favour marketing behaviour that offers contexts to the consumer in which the individual can live out experiences and experiment with their own self-image diverse from their role in society. Lately businesses, aware of these social trends of the individual, tend towards stimulation of search for the "self", seeking to suggest their own products/brands as ideal partners in reaching the individual's social objective. Businesses actually seek to stimulate this dyadic relationship with the individual, in support of the expression of "I", by means of communication activities. One is reminded of the claim "Just do it" by Nike, or Apple's insertion of the "I" prefix in their products such as the I-pod and the I-phone.

In contrast to the North European School, the Latin/Mediterranean School considers the phase of individualism as the conclusive part of the modern period, marked by the freedom of the individual from socially-imposed links (for example, social class). For scholars following this thought, consumerism represents an inversion of social trends, so as to allow creation or maintenance of links between individuals (Maffesoli, 1996; Bauman, 1990). From this perspective new technologies, which have always been considered a cause of social isolation, have become the means and the places in which re-socialization of the individual can be fulfilled. One thinks of the spreading of social networks and themed blogs, or of the stimulus given to customers and web-site visitors by businesses in order to create communities. These social dynamics are often represented by a multitude of experiences and emotions which are born from the behaviour of the individual and culminate in a demonstration of tribalism, or spontaneous social aggregation founded on the sharing of experiences, emotions and passions between individuals (Cova, 2003; Cova, Kozinets et al, 2007).

The Latin/Mediterranean School pays particular attention to the role of the tribe, and sustains that every individual, however socially mobile, is a component of tribes and plays a different role in each tribe.

This train of thought emphasises the constant search for multisensory experiences both as spectator and protagonist, which lead the individual towards new forms of social aggregation in tribes and in neo-communities, characterised by increased involvement but resulting in being provided with links. The tribe, understood as the dynamic and flexible positioning of the individual, tends in this way to substitute concepts of social class and segmentation which are themselves representative of socially static positioning (Cova and Cova, 2002).

The view of the Latin/Mediterranean School changes the outcome of marketing, which functions as a "vector of tribal and social links" by which products and services permit and support social interaction between individuals. This evolution, induced both by new trends and

by the constant search for the self and for social relationships on the part of the individual, is modifying the application of traditional marketing mix variables, especially in respect to communications and distribution. These effects drive businesses to radically modify their behaviour in marketing, passing from a general broadcasting approach aimed at a mass of predefined individuals to a narrow or net-casting approach as a result of which businesses express awareness of the constant search for individuality, even within groups, on the part of the consumer. This evolutionary trend drives businesses to modify their approach to the consumer, moving from a unidirectional *"from-to"* relationship to *"between"*-type networking.

The identification of the individual in a group, therefore, expresses the degree of self-perception, both individually and as a member of a group in relationship with other members and with the business/brand (Semprini, 2006). This level of perception is developed based on sharing specific attributes of the product/brand – functional and above all symbolic - with other members (Dutton and Celia, 1994). The condition of identification by the individual satisfies the double need for developing the concept of self and identification with belonging to social groups (Mael and Ashforth, 1992). The achievement of this condition is demonstrated by the creation of a sense of belonging by the member both towards the group/community and the business/brand (McAlexander, Schouten, and Koenig, 2002; Muniz, O'Guinn, 2001).

Individuals do not seek out new products and/or services or places from which to buy in order to be more free, but rather to experience emotions which can link them to other individuals (Roberts, 2006). Businesses emerge from this effect with a new social role, first through the products and/or services/brands and then through the creation of links. The places for consuming and acquiring, therefore, transform into places for actual self-concept and social identification – actual *"containers"* which, by effect of their spaces and variety, transform into places of identity, for socialization and aggregation (Cardinali, 2009; Codeluppi, 2000).

Businesses do not limit themselves to creation of products ad hoc, but they often stimulate or ask for commitment from the individual in co-production of products. This redefinition of boundaries, on the part of businesses, has been nourished recently by the multiplication of retailing channels, places and moments of contact, fruit of an ever-clearer consumer connection strategy. Businesses increasingly target their actions in order to co-involve the stimulated individual to immerse themselves in the value element of the brand.

Outlined trends are confirmed in a recent survey conducted in 2007 by *"Osservatorio Innovazione nel Retailing Università di Parma"*. This survey shows that, in the last five years, the primary information source for retailing strategy in the fashion sector are, now, psico-social variables of consumption model at the expense of purchasing and demographic and socio-cultural patterns (Figure 1).

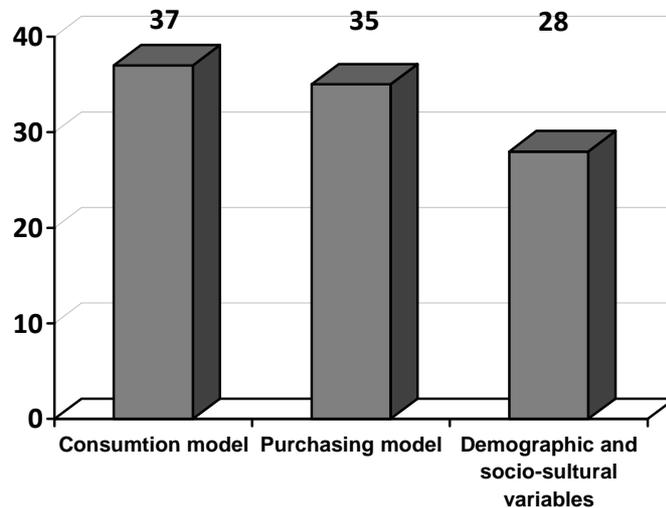


Figure 1: Importance of variables that affect consumers behaviour for retailing innovation in Italy

Outlined trend encourages the increasing retailing formats innovation, in Italy and in the rest of the world, overall speaking of setting and communication tactics in store (for instance the stores that evoke the value systems like Sainsbury's ecological store in Greenwich), changing the traditional store in socio-cultural setting in which consumer and brand meet (Fabris, 2008).

DISTRIBUTIVE FORMATS FAVOURABLE TO VERTICAL BRANDING STRATEGY

The most significant efforts made towards creation of a strong relation between brand and consumer are found in retailing, a place of value and perception in which the individual can express their own identity and their social identification. The sales point thus becomes the place of realisation, of experience and emotions, as much as possible unique and unrepeatable. Management of the customer experience (Berry *et. al.*, 2002; Haeckel *et. al.*, 2003; Schmitt, 2003) becomes the key managerial function.

Not only franchising but also, and above all, the recent concept stores, flagship stores and temporary shops, represent distribution formats in which the individual can immerse themselves in the value of the brand and create relationships with other consumers attracted to the brand value.

These formats allow companies to activate vertical branding strategies (Richardson, 1996; Ravazzoni and Petruzzellis, 2004), fruit of the integration between production and retail. The focus on the social dimension of buying allows identification of vertical branding strategy and the characterization of two different strategic options: corporate vertical branding and cooperative vertical branding. Cooperative vertical branding brings about creation of contractual vertical marketing systems (Kotler, 1991), through affiliation, of which franchising is the most significant expression. Corporate vertical branding, however, the system of vertical

branding by companies (Kotler, 1991), is realised in the opening of single-brand stores managed directly by the producers.

This is also the case with concept stores, flagship stores and temporary shops.

Franchising

In order to examine the franchising concept, it is necessary to investigate what is meant by the term franchising and how this method of doing business came about, the variations that exist, and the advantages and disadvantages to both the franchiser and the franchisee.

The Dictionary of Retailing defines the term, "franchise," as:

"An authorisation granted to one person (the franchisee) to use the franchiser's trade name, trade marks and business system in return for an initial payment and further regular payments."

The term franchise covers a wide variety of arrangements under which the owner of a product, a process, a service or even just a name having a certain significance, for example that of a sportsman, permits another to make or use something in exchange for some form of payment. This can either be direct, for example a fee and/or royalty, or indirect in the form of an obligation to buy a service or product in which the license holder has some kind of business interest. It is unclear when franchising as a business concept, started, but its origins can be traced back at least to the 19th century. The first recognizable franchises were launched by Coca-Cola and the US car industry about a century ago.

Many variations exist today. Some franchisers sell their products and techniques as a combination whereas other franchisers supply only the *modus operandi* and ancillary services of the business system. A classic example of the first type is Coca-Cola, which franchises bottlers in nearly every part of the world. The parent company sells its syrup, which is made to a secret formula. It provides franchisees or bottlers with manuals that define (and demand compliance with) the size and shape of bottles, advertising programmes, marketing techniques, and standardized systems of every aspect of the business.

The combination of one central organisation developing the entire, "package," and leasing it out to the franchisees is so effective that billions of dollars in profit have been generated for companies like Coca-Cola and Benetton, and billions of satisfied customers have been created world-wide.

Those franchisers that supply the *modus operandi* and subsidiary services of the business system sell only their knowledge, operation manuals, and marketing methods. This is paid for in various ways such as a franchise fee, and often includes an on-going percentage of profit or turnover as royalties, or a fixed-fee royalty.

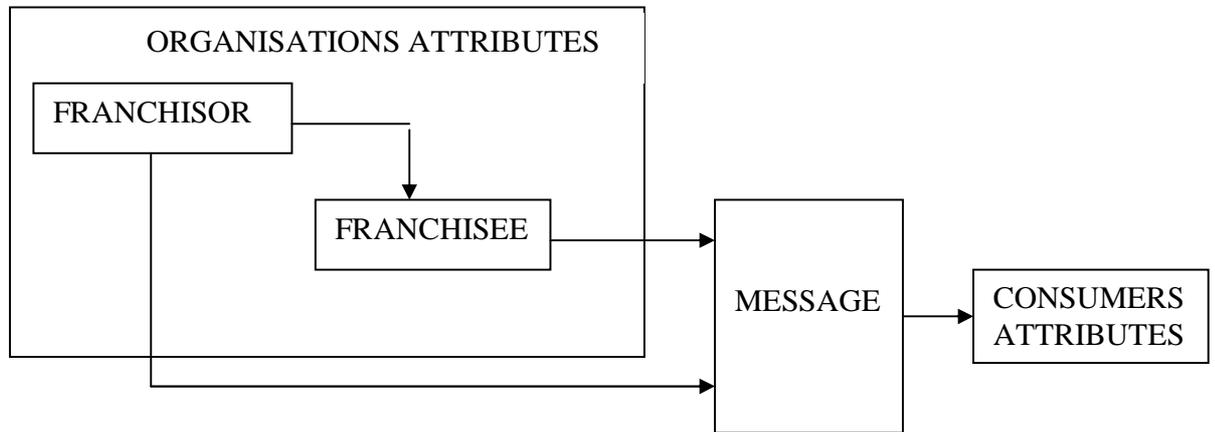
The business format franchising has been responsible for the rapid growth in the franchised marketing method. It involves the use not only of goods and services identified by trademarks, and/or service marks, but also the preparation of a, "blueprint," of a successful way of operating all aspects of a business.

The seller of the, "blueprint," (the franchiser) will have prepared and smoothed the way for the franchisee to open up a business of his or her own in the predetermined established format. The franchisee will also have the backing of the franchiser organisation.

Analysis of the work of Hall and Dixon (1989) and Golzen, Barrow and Severn (1985) and sustained by others, indicates that the main features of business format franchising are as follows:

1. It is a licence for a special period of time to trade in a defined geographic area under the franchiser's name and to use any associated trade mark or logo.
2. What is franchised is an activity, usually some form of service, which has already been tried and tested to produce a formula of operating that has been found to work elsewhere.
3. The franchiser provides the entire business concept of that formula (the blueprint) for the conduct of operations which the franchisee must follow.
4. The franchiser educates the franchisee in how to conduct the business according to the method laid down in the blueprint.
5. The franchiser provides back-up services in order to ensure that he franchise operates successfully.
6. In the exchange for the business blueprint and the services that the franchiser provides, the franchisee is expected to make an initial investment in the business and to pay a royalty to the franchiser thereafter, based on turnover or profits. There may also be an obligation on the franchisee to buy some or all goods and equipment from sources nominated by the franchiser.
7. The participation of the franchiser in setting up the business does not mean that s/he owns it. It belongs to the franchisee and s/he is free to dispose of it, though s/he will probably have to give the franchiser first refusal. Benetton is a good example of a company using business format franchising. It operates in the clothing market world-wide from its base in Italy.

In Field 1 of Nicosia's Model the company's attributes lead to a message which in turn tempers the consumer's attributes. In our case and especially as Business Format Franchising is the key, the company's attributes become the organisation's attributes and can thus be further explained by the diagram below:-



The Nicosia model focuses not on the act of purchasing itself, but the processes which proceed and follow the act. "The act of purchasing is only one component of a complex ongoing process – a process of many interactions amongst many variables." The firms attribute leads to a message being sent out to the consumer who in turn translates the message based on their own attributes and needs.

Hence the company's behaviour affects the consumer and the consumer's reaction in turn affects the behaviour of the company. Nicosia conceptualises consumer behaviour itself as a decision process, rather than as a result of a decision process. Nicosia's emphasis on decision making as an ongoing process is paramount. When a buyer is beginning to purchase a product, s/he lacks experience. S/he lacks knowledge of choice criteria, as such elements of the retail marketing mix, or knowledge of the brand and its potential.

The general models of consumer behaviour do not provide a basis for predicting outcomes as they stand. They do not provide a clear picture of the types of factors that may be said to impinge on such behaviour, though in each case such a picture is partial. Broadly, each model contains variables that may be connected with the individual consumer's characteristics, purchase situation characteristics and product characteristics. Each model includes a number of characteristics in each variable group, which militates against their straightforward extension (as flow models, inclusion of partly additional factors requires considerable revision). However, the Nicosia model offers greater scope for amendment/extension for two chief reasons: -

- The group of variables associated with, "company," impacts on consumer is not fleshed out.
- The model groups together variables within sub-fields, thus allowing modification/extension without compromising its original integrity.

For these reasons the Nicosia model appears to allow for as great a scope for proactive behaviour.

Concept stores and temporary shops

The function of thematic sales points renders the concept store the place where the consumer can not only buy products but also come into close contact with the “world” proposed by the brand, immersing themselves into the “business philosophy”, into the spirit and history of the brand, into a memorable shopping experience. One of the first examples of concept store took place in 1986 in New York, where the stylist Ralph Lauren inaugurated his first concept store. He chose “American-style” as his theme, the store was constructed as a film set that suggested an American atmosphere, an ideal and luxurious style of life. In Italy in the 1980s, the stylist Elio Fiorucci united the sale of fashion, technology and articles for the home in one unique space, paying great attention to atmosphere and to the shopping experience. Recently the well-known car producer Ferrari has inaugurated its own concept store in Regent Street, London’s famous shopping street.

The temporary shop, which appeared early in the 2000s, expressed a new retail concept, strongly innovative with respect to the traditional distributive formula. It was an attempt to transform the shop into an event and, therefore, as a branding instrument, to get near to consumers, to promote an active dialogue with them and to develop a relationship with them through the customer experience. There are many diverse cases of temporary store (Nivea, Lagostina, Saeco, Barilla, Breil, Chanel, Durex, Fiat, Gabetti, Lancôme, Levi’s, L’Oreal, Nike, Philips, Veuve Clicquot) both in Italy and abroad.

This new format aims: (1) to arouse curiosity, to attract attention and to give visitors unique experiences and to feed their emotions by way of being an unrepeatable happening, destined to be exhausted in a short space of time; (2) to experiment with the effectiveness of brand extension projects (Aaker e Keller, 1990; Park et. al., 1991, 1996; Smith, 1992; Keller e Aaker, 1992, 1998; Sullivan, 1992; Rao e Ruckert, 1994; Choi, 1998) with reference to new segments of consumerism in contrast to those which traditionally presided. Durex implemented this strategy in their clothing line, and Nivea in their hair care category; (3) to launch new exclusive product lines (for limited periods), destined to personalize goods on offer; (4) to test new products (exploration of customers’ tastes) before definite launch on a large scale; (5) to develop the relationship with the client and to acquire immediate informative feedback (awareness of the target, with respect to their needs, orientation and behaviour).

Temporary shops are located in large urban metropolitan centres, in zones which are particularly representative, in famous and prestigious streets and squares, in places exclusive to fashion and dedicated to shopping.

The search for locations attractive to visitors can also present the choice of places linked to culture (museums and art galleries). For example, Louis Vuitton designed an exclusive temporary shop inside the Brooklyn Museum in New York. Previously unknown places can also become the location of temporary shops, by way of the fact that these can feed curiosity and be spread by word of mouth by the public. Target has opened a temporary shop on a boat that sails along the Hudson River in New York.

The setting up of temporary shops and concept stores (Kotler, 1973; Donovan e Rossiter, 1982) plays a fundamental role in their success, these spaces being perceived in a strongly innovative and attractive manner. Visitors are offered spaces in which to relax, with multisensory visual

marketing stimuli and experiences (Langrehr, 1991; Botti e Castaldo, 2001). Inside these spaces, visitors can take advantage of experiential shopping or, if they like, emotional shopping and hedonistic consumption (Hirschman e Holbrook, 1982; Holbrook e Hirshmann, 1982; Botti et. al., 1999; Pine e Gilmore, 1999; Schmitt, 1999; Codeluppi, 2001; Vescovi e Checchinato, 2004; Carpenter et. al., 2005). The uniqueness of the acquisition experience is often combined with the uniqueness of the products on offer (exclusive product lines, produced in limited edition, not on sale in the general market). The temporary shop avails itself of promotional support and information by various means of communication, above all by digital technology (company web-sites, mini-sites and blogs created for the occasion) in order to activate the process of viral marketing (Godin, 2000).

The temporary store and the concept store converge in the thematic temporary store, which can respond to diverse needs. Primarily, temporary shops can be dedicated to a target aimed for by consumers, as was done by United Colors of Benetton when they inaugurated their first temporary store in Milan, dedicated exclusively to children, in June 2008. The thematic temporary store can also provide the emblem of a specific theme that recalls the concept of basic brand positioning, expressed through the company claim/slogan. This in theory aims on focussing competitive positioning on starting points (van Riel, 1995), that is to say, on the distinctive value of the elements on which the difference of the brand is founded and the promise it makes to the customer (Keller, 1998; Aaker, 2004). For example, Philips dedicated a temporary shop to the theme of "simplicity". In fact, the claim/slogan was "Sense and Simplicity", through which Philips expressed its brand promise. This included the intention of the company to create advanced easy-to-use products and solutions to satisfy the needs of consumers all over the world. Philips opened the thematic temporary store in mid-December 2008 (closing in mid-January 2009) in Milan, which offered visitors the opportunity to personally experiment with Philips' "simple technology". Fiat also opened a themed temporary store in Milan, entirely dedicated to the new Fiat 500, to its values and to all those passionate about this model which made history for the Turin company.

Flagship stores

The flagship store has for many years represented an important opportunity to add value to strong brands (Kozinets et. al., 2002; Moore e Doherty, 2007). This particular distributive format is considered above all as a channel of communication. The pre-requisite for a single-brand flagship store is the possession of an already well-established brand (Aaker e Joachimsthaler, 2000). The "Epicentro" flagship stores, opened by Prada in New York and Tokyo, represent examples emblematic of the communicative force of these distributive formats supported by the existence of a previously well-established brand identity.

The communicative value, more than the distributive value, attributes particular relevance to the elements of entertainment in the flagship store, most of all in the ambit of the fashion system and the luxury sector – so much as to induce various authors to speak of making sales points into "theaters" (Pine e Gilmore, 1999; Wolf, 1999), and of the "show" of merchandise (Codeluppi, 2000). In consequence, the furnishings and structure exposed in this type of sales point are considered scenic elements of a theatre (Grove e Fisk, 1992). The various theatrical elements in a flagship store (symbols, colours, music etc) represent by definition the many elements expressed

in the world of the brand (Semprini, 2003), elements to make the acquiring experience unforgettable and always new (Aaker e Joachimsthaler, 2000).

To give an idea of the complex function carried out by the flagship store, the metaphor "laboratory" has also been suggested. The term "laboratory" indicates a place in which certain activities are carried out, the participants being actively involved and interacting both between themselves and with the equipment put at their disposition. From this perspective, the flagship store can be seen as a container that allows experimentation with new solutions, the discovery of solutions appreciated by customers and the reapplication of these solutions (Aaker e Joachimsthaler, 2000). Experimentation is linked in this way to the idea of the laboratory, which expresses a platform for relationships and the durable links of learning between the company (brand) and the consumer (Pellegrini, 2001). The idea of the sales point which goes beyond being the mere traditional meeting point between production and consumer to becoming transformed into a laboratory allows us to recognize it as a space where the company-customer relationship becomes a point for mutual learning (Pine e Gilmore, 1999).

The metaphor of the theatre, and more accurately, that of the laboratory, allows us to understand the reason why the flagship store is associated with the phenomenon of the shopping experience and the brand, and has also been attributed with the function of experience provider (Schmitt, 1999) inside the store.

Although the temporary store and the flagship store share the elements of theatre and experiential shopping, they present differences that can be taken back to a fundamental factor: time, or rather the use which is made of it. For the temporary store, the brevity of the life cycle makes this distributive formula a store-event; in the case of the flagship store the duration of the structure allows it to be stationed in specific places, so as to permit it to carry out its activities until its function is fulfilled. As a matter of fact, once created, the space that represents the best expression and the symbol of excellence of a company's brand cannot be seen to cease to exist but, on the contrary, must last through the course of time to confirm and consolidate its presence and to give its customers the possibility to visit at any time and to find there the valued stimuli of the brand. On closer inspection the duration, for which the flagship store is naturally suitable, also justifies the heavy investment in material and technology that companies sustain in order to guarantee a strong sense of theatre and experience for the customer.

This diverse use of the time factor, which constitutes one of the major differences between temporary stores and flagship stores, does not exclude the possibility that there could be a complementary relationship between the two formats. For example, Nike has experimented with the opening of a temporary shop even though it was one of the first brands to have opened flagship stores (Nike Town). Inside their flagship stores, besides promoting new product lines Nike also offers a series of activities and experiential and emotional spaces: personalization of products, fitness, music clubs and multimedia parks. To be excluded, therefore, is an alternate use to these two formats that appear, above all, as complementary elements, insofar as they pursue the same ends of branding, even though using different methods.

CONCLUSION

The concept store, the temporary store and the flagship store represent, through their characteristics, the latest expression of the evolution of vertical branding and branded retail. In particular, the advent of the temporary store is overturning the traditional way of understanding the point of sale, anchored to the idea of a store for which limited duration in time is the qualifying element.

This idea is compared to the approach of vertical branding. Actually, it contemplates a long-lasting and stable structure of retailing, as the franchising networks in cooperative vertical branding (contractual vertical marketing systems) and the others retailing formats that are in the corporate vertical branding category (the concept store and the flagship store).

Franchising envisages the creation of a network of retailer, which by its nature is intended to last over time to justify the investment for the creation and maintenance.

The classic ideas linked to the sales point are being emptied of meaning and importance: the geographic catchment area, spatial proximity, customer fidelity and commercial goodwill. Similarly, the concept store and the flagship store involve the creation of setting intended to last over time although with geographic catchment areas more extensive.

The short or very short duration of the temporary shop sweeps away these old ideas, substituting them with the concept of the spatial event and the place of unique and unrepeatable experiences under the symbol of the brand of the producer.

The most direct and immediate consequence from this evolution in the understanding and management of the store is the loss of, or major reorganization of, the connotations of a selling space in favour of those of a place temporary for experiential shopping and hedonistic consumption, in which the brand displays and speaks for itself and its values in order to develop a strong relationship with the consumer. The latter, constantly searching his/her self and social identification, can discover the world of the brand and its system of values.

In the meantime, branding opportunities on the part of the company are considerably increased with the spread of this new format, with respect to the flagship store which, in its most significant expression, seems to be in reach of only the strongest firm/brands that have much financial resources. The temporary store also assures a branding function - that is, allowing the direct management of the brand and its relationship with the consumer. The temporary store, nevertheless, does not require fixed costs for the amortization of its selling space in a building or for the renting of this space for many years, as is required for the flagship store. Besides, for symbolic significance, dimension and duration, the flagship store renders onerous investment necessary for the setting up of its internal spaces (using multisensory stimulation tools and solutions of visual merchandising in order to heighten the excitement of the show).

If the temporary store truly constitutes a more accessible distributive formula for branding, we can conclude that its arrival could generate similar effects to those that the internet has been producing for some time, allowing small and medium-sized businesses to bring and add value to their own brands, in order to increase their visibility and fame.

The results of this study provide very important information for consumer behavior scholars and for managers and practitioners interested in formulating branding strategies. The study also provides considerations about how to create and/or manage the relations between brand and consumer allowing the psico-social satisfaction of this latter.

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WILL HIGH GROWTH ECONOMIES HAVE ENERGY-INTENSIVE GROWTH?

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Purpose - The study puts forward the viewpoint that India and China may achieve a high growth rate with lesser consumption of energy per capita in comparison to the developed countries of the world.

Literature /Theory - The International Energy Agency has made projections that since in the next two decades India and China would be growing rapidly they will have an average annual growth rate of demand for primary energy higher than the world average .

The study puts forward the viewpoint that though the demand for primary energy, by the two economies will be growing rapidly, the primary energy demand per capita will still be lower in comparison to the developed countries of the world. Observations reveal that in the past two and a half decades (1980 -2005) India and China had a phenomenal growth rate but the energy consumption per capita of the two countries did not increase at the same rate. Even though India and China are high growth economies the energy intensity of both the countries has declined due to energy efficiency measures adopted by them. In fact, a comparison between the growth rate of gross domestic product and per capita energy consumption of India and China (since 1990 to 2005), does not reveal any specific correlation between the two.

Methodology - A theoretical framework is developed by taking into consideration a projection period of twenty-five years (2005-2030) for demand of primary energy, in context of three scenarios namely reference scenario, alternative scenario and high growth scenario, based on the estimates made by International Energy Agency. Data has been compiled from international publications and national reports to support the hypothesis. A number of indicators and policy measures have been assessed to ascertain the per capita use of energy by India and China in relation to the developed countries of the world.

Findings - A high positive correlation between energy consumption per capita and high growth rate may reduce as developing nations are using energy more efficiently that will result in a decline in energy intensity.

Limitations - There are some important differences between IEA energy statistics for India and China and official national data, because of methodological differences and statistical discrepancies.

Practical Implications - The developing countries can adopt energy-light model of growth like India and China. Energy – light development strategies of urbanization and industrialization can be framed by late developing countries of Asia and Africa.

Promotion of energy efficient appliances, green infrastructure and energy friendly lifestyle can reduce excessive dependence on energy for urbanization.

Encouragement of clean energy projects and emphasis on industrial energy efficiency can minimize the use of energy for industrialization.

Energy conservation policy measures initiated by India and China may be adopted by developing countries.

Adoption of energy efficiency measures and energy management practices can help in reducing the energy intensity and thereby result in energy security.

Originality/Value - India and China are likely to achieve high growth rate with lesser consumption of energy per capita.

Category of presentation:- Viewpoint

Keywords - Primary energy demand, per capita energy consumption, energy intensity, energy efficiency, recycling ratios, energy-light growth, green index,

Conference Theme Addressed:- Energy Security- The Global Challenge

INTRODUCTION

Since times immemorial it has been regarded that food, clothing and shelter are basic necessities essential for the survival of an individual. With the advancement in science and technology it is now realized that access to a dependable, sustainable and environment friendly source of energy is an essential requirement of a civilized modern society. India and China are the emerging players of world economy and international energy markets. Rapid economic development in both the countries is keeping their energy demand growing. As these countries would become richer they would demand more energy for urbanization and industrialization.

This is because it is generally regarded that with rapid economic development the per capita energy consumption is also high. The study aims to answer the question whether India and China will also register energy – intensive growth as they grow rapidly in the next two decades. The objective of the study is to highlight the fact that in the last two decades the two economies experienced a high growth rate with lesser per capita energy consumption and due to initiation of energy conservation measures by both India and China, the energy intensity is likely to reduce in future. A high growth rate in the two economies may not be accompanied with higher consumption of energy per capita as experienced by the developed countries of the world. In such a scenario the high positive correlation between per capita energy consumption and growth rate may not be applicable for countries like India and China.

PROJECTIONS OF TOTAL PRIMARY ENERGY DEMAND: AN OVERVIEW

The International Energy Agency (IEA) has made projections that India and China would have greater demand for energy as they would be growing steadily in the next two-and-a-half decades (2005-2030). As economic development would take place in these countries there would be greater demand of energy for industrialization, urbanization and electronic gadgets.

Projections have been made by IEA in context of three scenarios – Reference, Alternative and High Growth. The Reference Scenario is a baseline scenario that makes projections on the basis of existing policies to conserve energy in a country. On the other hand the projections of Alternative Scenario are based on the new policies initiated by India and China for energy efficiency and energy management. The High Growth Scenario assumes that the gross domestic product growth in both the countries rises by 1.5 percentage points higher than the Reference Scenario. On this basis the average growth rate in High Growth Scenario for India is projected at 7.8% per annum and for China at 7.5% per annum. The average growth rate of primary energy demand per year in India and China in the next two decades will be higher than the world average in all the three scenarios.

Table no. 1 shows that the primary energy demand for India in the Reference Scenario is projected to grow at an average of 3.6% per annum, and for China at 3.2% per annum, while the

world average is projected to grow at 1.8% per annum. The total primary energy demand in India is projected to increase by two-and-a-half times from 537 mtoe in 2005 to 1299 mtoe in 2030 and in China to almost double from 1742 mtoe in 2005 to 3819 mtoe in 2030. The demand for primary energy by the two countries in the Reference Scenario grows at a higher rate compared to the Alternative Scenario, as it makes projections on the assumption that the government does not undertake new policies to conserve energy.

In the Alternative Scenario, the primary energy demand by India will grow at an average of 2.8% per annum (17% lower than Reference Scenario) and in China it is projected to rise at 2.5% per annum, while the demand in the world will increase at an average of 1.3% per annum. The total primary energy demand in India will double from 537 mtoe in 2005 to 1082 mtoe in 2030 and in China it is projected to rise by a little less than double from 1742 mtoe in 2005 to 3819 mtoe in 2030.

	<i>Average Annual Growth Rate (2005 – 30)(%)</i>			2005		2030	
	<i>India</i>	<i>China</i>	<i>World</i>	<i>India (Mtoe)</i>	<i>China (Mtoe)</i>	<i>India (Mtoe)</i>	<i>China (Mtoe)</i>
<i>Reference Scenario</i>	3.6	3.2	1.8	537	1742	1299	3819
<i>Alternative Scenario</i>	2.8	2.5	1.3	537	1742	1082	3256
<i>High Growth Scenario</i>	4.2	4.0	2.1	537	1742	1508	4691

Table No.1 Total Primary Energy Demand: Projections Source: World Energy Outlook, 2007, International Energy Agency

In case of High Growth Scenario the primary energy demand in India is projected to grow at 4.2% per annum and in China at 4.0% per annum. On the other hand the demand in the world will be at an average of 2.1% per annum. There will be almost threefold rise in total primary energy demand in India and China in the high growth scenario. In India the total primary demand will increase from 537mtoe in 2005 to 1508 mtoe in 2030 while in China from 1742 mtoe in 2005 to 4691 mtoe in 2030. In comparison with the Reference Scenario the demand by India and China, in the High Growth Scenario, would be higher by 16% and 23% respectively. But at the world level the demand for primary energy is only 6% higher than the projections made in the Reference Scenario.

The projections of total primary energy demand for India and China in all the three scenarios show that in the next two-and-a-half decades the total primary energy demand will be high. But if we take into consideration the total population of the two economies the per capita energy consumption turns out to be quite low. The total primary energy demand is higher because the two economies are home to one-third of world population. How much is the energy consumption per head rather than the total energy consumption should be cause of concern. The next section undertakes inter temporal and international comparison to exemplify this viewpoint.

TOTAL PRIMARY ENERGY DEMAND AND PER CAPITA ENERGY CONSUMPTION: TREND AND PROJECTIONS

A trend analysis of previous two decades of high growth, in India and China, has been done to study the relationship between the total primary energy demand and per capita energy consumption. To assess whether the two economies had a high level of energy consumption a comparison has been made with the developed economies of Japan, United Kingdom and United States. Projections for total primary energy demand and per capita energy consumption for India and China are also compared with Japan, United Kingdom and United States to assess the dependence of the two economies on energy in future.

	<i>India</i>	<i>China</i>	<i>Japan</i>	<i>United Kingdom</i>	<i>United States</i>
1980	209	604	346*	201	1811*
1990	320	874	444	212	1924
2000	459	1121	527*	234	2302*
2005	537	1742	530	235	2336
2015	719	2743	576	N.A.	2574
2030	1082	3256	567	N.A.	2712

Table No. 2 Total Primary Energy Demand (Mtoe) Table Notes and Sources:

1. Total Primary Energy Demand for India, China, Japan and United States is based on estimates of WEO, 2007, IEA.
2. Total Primary Energy Demand for United Kingdom is calculated from World Development Reports, World Bank.
3. Projections are based on annual growth rates of Total Primary Energy Demand for Alternative Scenario, WEO, IEA.
4. * World Development Report, World Bank,

India

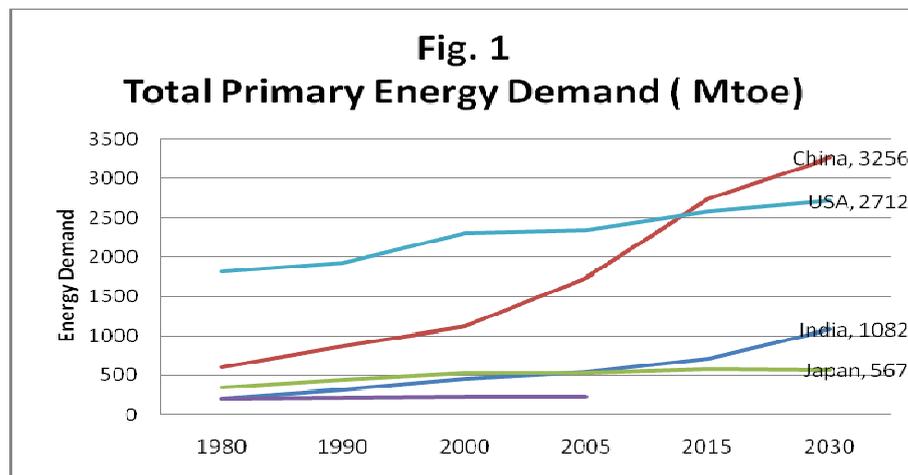
Although, in the past two-and-a-half decades the total primary energy demand in India, more than doubled from 209 mtoe in 1980 to 537 mtoe in 2005 (Table no. 2) in the next twenty-five years it is projected to just double from 537 mtoe in 2005 to 1082 mtoe in 2030. In 2005, the total primary energy demand in India was one-fourth of United States, one-third of China and almost equal to that of Japan. Even in 2030 the total primary energy demand in India will be one-third of United States and China.

As shown in Table No. 3 the per capita energy consumption in India has also increased marginally from 0.3 toe per capita in 1980 to 0.4 toe per capita in 1990 and further to 0.5 toe per capita in 2005, but compared to the other countries of the world, it is extremely low. One in every six people in the world resides in India while they account for only 5% of energy demand. The per capita energy consumption in India is about one-sixteenth of United States, one-eighth of Japan and United Kingdom and one-third of China. Projections of per capita energy consumption, for the country, for the next two decades also show a marginal increase. Energy use is projected to increase to 0.6 toe per capita in 2015 and in the next one-and-a-half decade it again rises marginally to 0.7 toe per capita. Incidentally, even in 2030 the consumption of energy

per head by India is projected to be one-third of China one-seventh of Japan, one-eleventh of United States.

China

The total primary energy demand in China in 2005 was more than Japan, United Kingdom but less than United States. Although the total primary energy demand in China almost trebled from 604 mtoe in 1980 to 1742 mtoe in 2005, it is projected to only double to 3256 mtoe in 2030. Since one-fifth of the total world population resides in China the projected total primary energy demand is also higher than Japan and United States but the projected per capita energy consumption is low.



The per capita energy consumption in China increased from 0.6 toe per capita in 1980 to 0.8 toe per capita in 1990 and further to 1.3 toe per capita in 2005. This was about one-third of Japan and United Kingdom and one-sixth of United States. The projections for China show a consistent increase in the next two decades. The per capita energy consumption is projected to increase to 1.5 toe per capita in 2010 and further to 2.2 toe per capita in 2030. Despite a rise, the projected per capita energy consumption in China will be 2.5 times less than Japan and 3.5 times less than United States.

Japan

Although, the total primary energy demand in Japan in 2005 was lower than India and China the per capita energy consumption was 8 times more than India and 3.3 times more than China. The per capita energy consumption in Japan has increased from 3.0 toe per capita in 1980 to 3.6 toe per capita in 1990 and further to 4.2 toe per capita in 2000 but decreased marginally to 4.1 toe in 2005. Though, the total primary energy demand is projected remain almost the same in 2030 the per capita energy consumption is estimated to rise from 4.1toe per capita to 4.9 toe per capita.

	India	China	Japan	United Kingdom	United States
1980	0.3	0.6	3.0	3.6	8.0
1990	0.4	0.8	3.6	3.7	7.7
2000	0.5	0.9	4.2	4.0	8.2
2005	0.5	1.3	4.1	3.9	7.9
2010*	0.5	1.5	4.2	N.A.	7.8
2015*	0.6	1.6	4.3	N.A.	7.8
2020*	0.6	1.8	4.5	N.A.	7.8
2025*	0.7	2.0	4.7	N.A.	7.8
2030*	0.7	2.2	4.9	N.A.	7.8

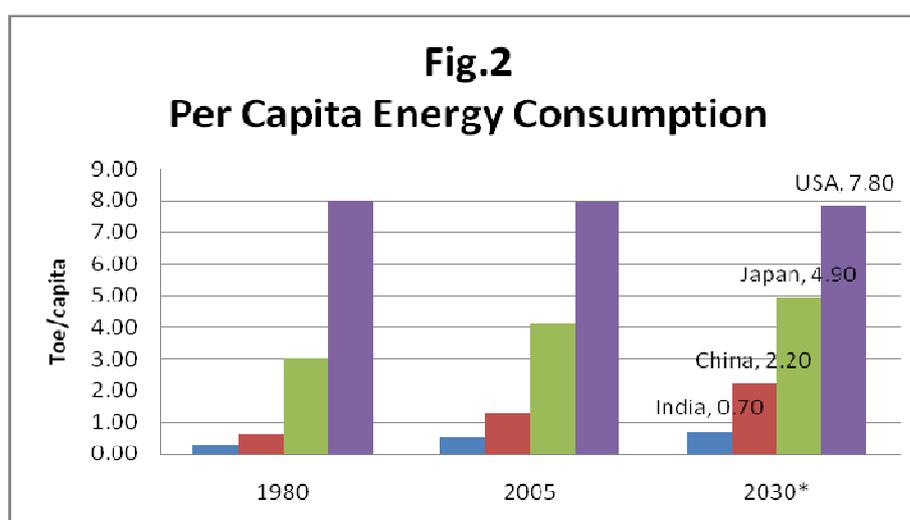
Table No. 3 Per Capita Energy Consumption (toe/capita)

Table Notes and Sources:

1. Total Energy Consumption is calculated as product of per capita energy consumption and total population by taking details of the two variables from World Development Reports, World Bank.
2. Projections of total population are based on population growth rate projections made by World Energy Outlook, 2007, IEA.
3. Projected Per Capita Energy Consumption is based on annual growth rate of energy demand projected for the Alternative Scenario in World Energy Outlook, 2007, IEA.

United Kingdom

United Kingdom has registered a marginal rise in total primary energy demand from 201 mtoe in 1980 to 235 mtoe in 2005. While the per capita energy consumption increased consistently from 3.6 toe per capita in 1980 to 4.0 toe per capita in 2000, and then decreased marginally to 3.9 toe per capita in 2005. The country had a lower total primary energy demand compared to India, China, Japan and United States.



United States

The total primary energy demand in United States has been rising consistently from 1811 mtoe in 1980 to 2336 mtoe in 2030. In the next two decades it is projected to grow at a rate of 0.6% per annum and will be 2712 mtoe in 2030.

The per capita energy consumption in United States is 15 times more than India and 6 times higher than China. Since 1980, a fluctuating trend is observed in per capita energy consumption in United States. The energy consumption in United States has decreased from 8.0 toe per capita in 1980 to 7.7 toe per capita in 1990 and rose to 8.2 toe per capita in 2000, but decreased to 7.9 toe in 2005. It is projected to decrease to 7.8 toe per capita in 2010 and remain constant at this rate till 2030.

A country may have a low total primary energy demand like Japan and United Kingdom but the per capita energy consumption may be high. The per capita energy consumption of India and China is low in comparison to Japan, United Kingdom and United States. Projections show that even though the two economies would be developed by 2030 (as assumed) the per capita energy consumption will still remain significantly low compared to Japan and United States.

RELATIONSHIP BETWEEN GROSS DOMESTIC PRODUCT AND PER CAPITA ENERGY CONSUMPTION

To ascertain the generally acceptable high positive correlation between the growth rate of gross domestic product and per capita energy consumption a trend analysis of previous two-and-a-half decades is undertaken.

	(1981-1990)		(1991-2000)		(2001-2005)	
	GDP	Per capita Energy Consumption	GDP	Per capita Energy Consumption	GDP	Per capita Energy Consumption
India	5.60	2.18	5.50	1.86	6.80	1.68
China	9.40	2.24	10.40	1.46	9.40	8.68
Japan	4.00	2.01	1.30	1.47	1.20	-0.06
UK	2.90	0.39	2.40	0.70	2.40	-0.38
USA	3.30	-0.28	3.40	0.56	2.60	-0.60

Table No. 4 GDP and Per Capita Energy Consumption

Average Annual Growth Rate (%)

Table Notes and Sources:

1. Annual growth rate of GDP has been taken from World Development Reports, World Bank. Thereafter the average annual growth rate for the three time periods has been calculated.
2. Per capita energy consumption data has been taken from World Development Reports, World Bank to calculate the annual growth rate year wise $((1981-1980)/1980)*100$. Thereafter the average annual growth rate for the three time periods has been calculated.

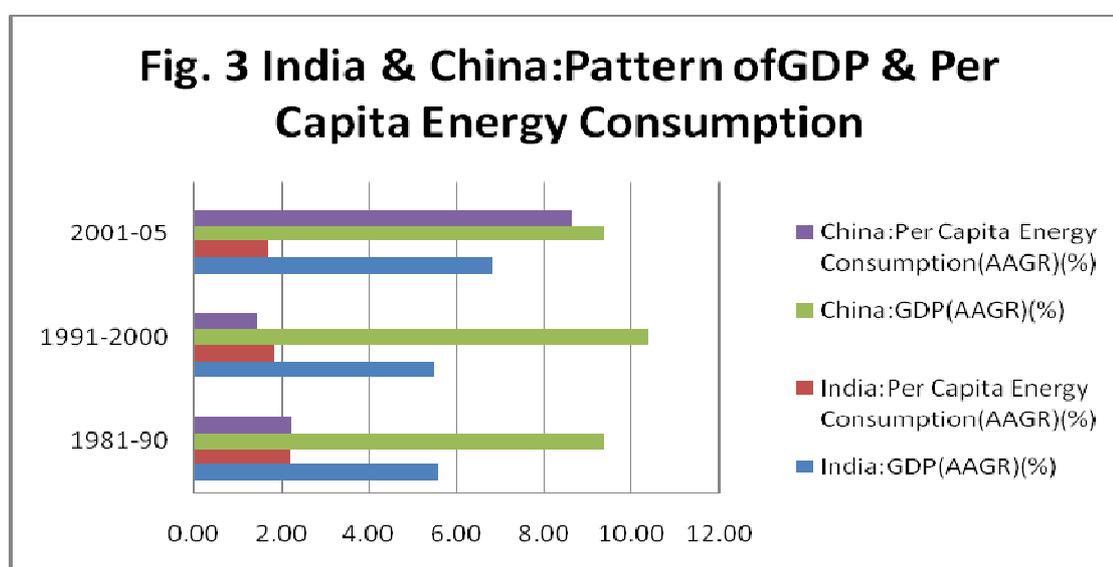
India

Though India has registered a rise in absolute per capita energy consumption since 1980 the average annual growth rate shows a consistent decline over the years. The per capita energy consumption has declined from an average of 2.18% per annum in the decade of 1980s to 1.86% per annum in 1990s and further to 1.68% per annum in the first half of current decade. This decrease has been observed despite an increase in the average growth rate of gross domestic product in the corresponding time periods from 5.6% per annum to 5.5% per annum to 6.8%.

Between 2001 and 2005 the Indian economy has grown at a rate of 6.8% per year, supported by an energy growth rate of 1.7% per year. In the previous two decades also the consumption of energy has been low despite an average growth rate of 5.6% per year.

China

In China the per capita energy consumption declined from 2.24% per annum in the decade of 1980s to 1.46% per annum in 1990s but increased in early 2000s to 8.68% per annum. This increase is due to greater investment by China in heavy industry in the early part of the current decade. The growth rate of gross domestic product increased from 9.4% per annum to 10.4% per annum but declined to 9.4% per annum in the corresponding time periods. In the decade of 1990s, China also had a phenomenal average growth rate of 10.4% per year supported by growth in energy consumption by 1.5% per year. Fig. 3 depicts an inverse relationship between growth rate of GDP and per capita energy consumption for India and China observed since 1980 with exception for 2000-05 for China.



Japan has registered a continuous decline in average annual growth rate in both per capita energy consumption and gross domestic product over the past two-and-a-half decades. United Kingdom and United States do not reveal any specific pattern between the two.

A comparison between the growth of per capita energy consumption and gross domestic product in the last two decades for the developing economies India and China does not depict a positive correlation between the two. Despite a rise in growth rate of gross domestic product the growth rate of per capita energy consumption, especially in India, has declined consistently. So also, in China excluding the 2000s decade similar relationship is discernable. Therefore, it can be stated that, as India and China would grow rapidly in the next two decades the per capita energy consumption may still be low.

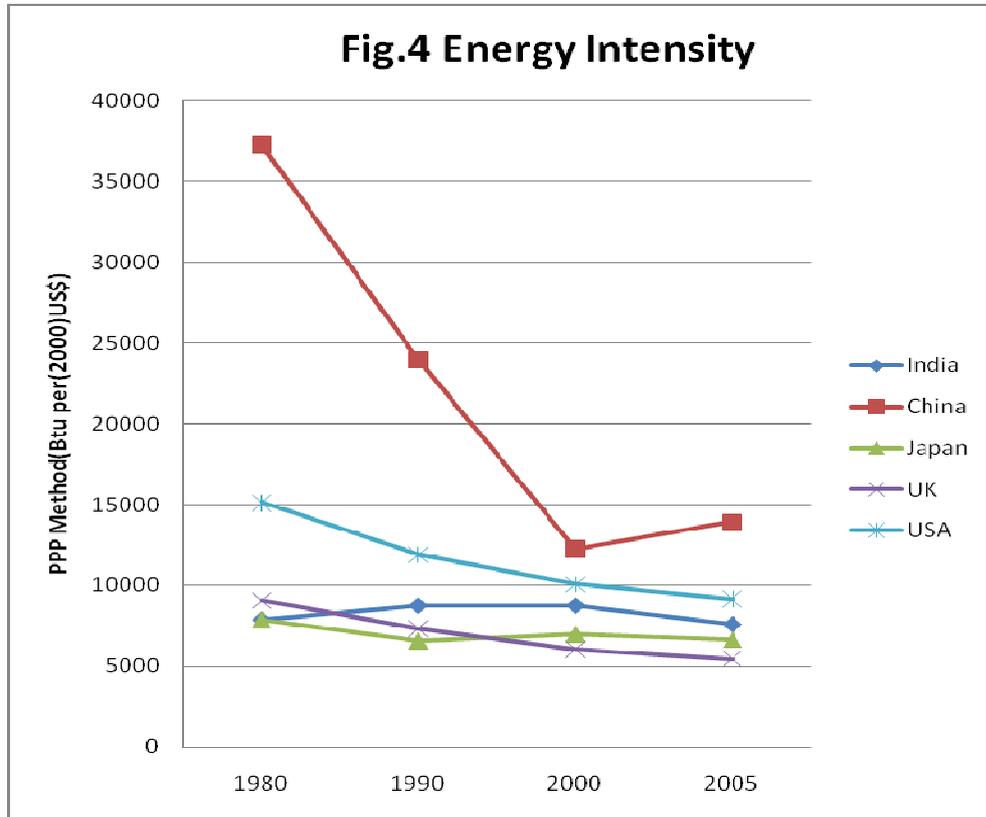
ENERGY INTENSITY

A trend analysis of requirement of energy to produce a dollar worth of GDP is the most important indicator to adjudge whether an economy of a country is energy-intensive.

Energy intensity in India has declined phenomenally in the first-half of the current decade after remaining almost constant in 1990s as shown in Table No. 5. Although China registered an increase in energy intensity between 2000 to 2005 it registered a continuous decline since 1980. This is a remarkable achievement for the two rapidly developing economies. A similar pattern of reducing energy intensity is also observed by Japan, United Kingdom and United States but they are developed countries. Fig. 4 depicts a decrease in energy intensity for both, the high growth developing economies and developed economies.

MEASURES TO REDUCE ENERGY INTENSITY

Energy friendly consumption pattern, emphasis on recycling ratios, and initiatives for industrial efficiency are some of the major factors that can help in a reduction in energy intensity in the short run. Measures to improve energy efficiency and conserve energy play a significant role in reducing energy intensity in the long run.



	<i>India</i>	<i>China</i>	<i>Japan</i>	<i>UK</i>	<i>USA</i>
<i>1980</i>	7870	37279	7863	9053	15135
<i>1990</i>	8738	23956	6567	7319	11902
<i>2000</i>	8741	12238	6983	6027	10082
<i>2005</i>	7582	13919	6636	5451	9146

Table No. 5 Energy Intensity-PPP Method(Btu per (2000) US\$) Source: International Energy Annual 2006, Energy Information Administration-Table posted on December 19,2008

(A) **Short Run Measures** - Major factors that have led to reduction in energy intensity in India and China are discussed below.

(a) **Patterns of Consumption** - The lifestyle of Indian and Chinese consumers is regarded as energy friendly. Consumers in India and China are amongst the three top scoring countries on Green index score as shown in Fig 5. "In spite of fears that their (India and China) Greendex scores could drop with economic development, most of these countries have improved their scores" (Greendex, 2009)¹. Greendex measures the discretionary and nondiscretionary consumption patterns to save energy in a country. It is a comprehensive measure of consumer behavior in 65 areas relating to housing, transportation, food and consumer goods. A brief

discussion of the sub-indices is undertaken to highlight the lifestyle habits that help in saving energy.

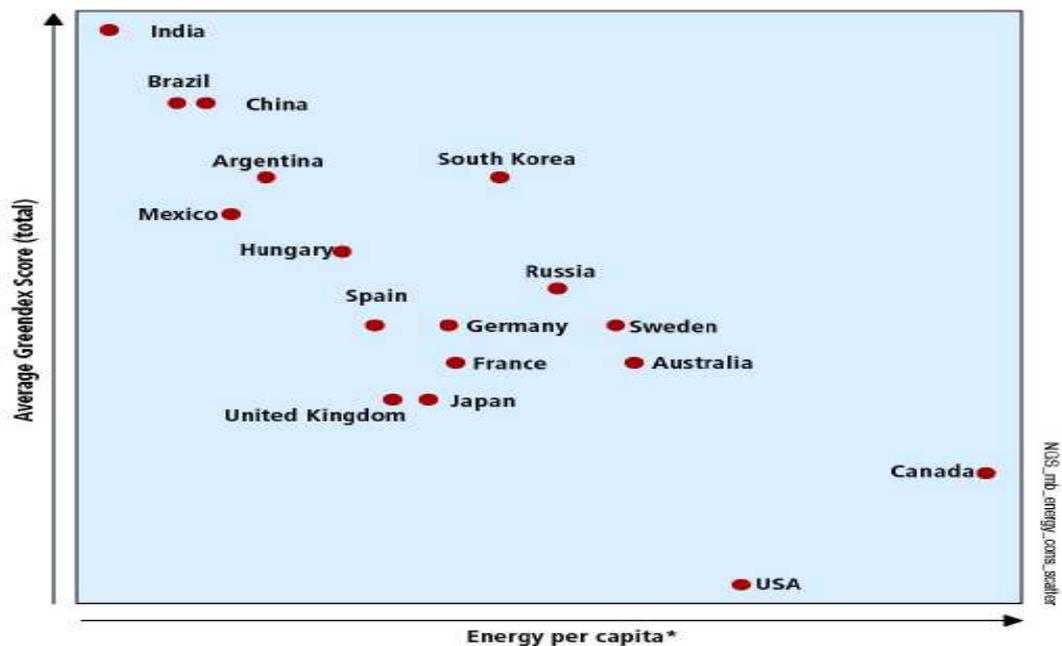


Fig 5 Greendex Score Source: Market Basket Report May 2009 Pg.15 *kg of equivalent oil

- 1) **Housing** - People in India and China score higher in this sub - index partly because they generally have smaller residences and use less energy in their homes. Consumers in the two economies engage in energy – saving activities, such as thermostat settings, minimizing their use of fresh water, and washing laundry in cold water.
- 2) **Transportation** - India and China registered a drop in transportation index perhaps as a result of peak prosperity in early to mid-2008, but the consumers in these economies tend more than others to walk, cycle or use public transportation.
- 3) **Food** - Though the scores of Indians in this sub-index dropped by 4.5 point since last year, they still top this index. This is so because they eat least amount of meat and seafood, while consumers in other countries tend to consume both meat and seafood at least once a week.
- 4) **Goods** - India and China topped this index. Indians recorded the highest year-on-year improvement in this index. Indian and Chinese consumers are more likely to buy environmentally friendly products, buy second-hand items and recycle goods frequently.

(b) **Recycling Processes** - Recycling processes have led to a reduction in energy demand. The high ratio of recycling in India (70%), compared to that of other major economies like Japan (53%) and United States (30%) has also limited the growth in energy use, because of the lower demand for virgin material such as steel, aluminum and copper.²

(c) **Industrial Efficiency**

Over the past decade, energy efficiency in Indian industry has increased steadily. In the major energy-consuming industrial sectors, such as cement, steel, aluminum and fertilizers, average specific energy consumption has been declining because of energy conservation in existing units, and (much more) due to new capacity addition with state-of-the-art technology. The specific energy consumption of Indian cement plants and of Indian iron & steel plants has been declining rapidly. In the cement sector, the specific energy consumption of the most efficient plants is now comparable to that of the most efficient plants in the world.³

(B) **Long Run Measures** - Policies for energy efficiency have been initiated in India and China. These policy measures will help in reduction of energy use in the long run.

India - One of the basic objectives of policy initiatives in India has been to increase energy efficiency that would help in a reduction in energy intensity. These measures have been undertaken in all the four energy consuming sectors of the economy. Some of the major policy initiatives are listed below.

(i) Policy measures in the **Power Generation Sector**

1. India has taken a step forward towards replacing more than 25 years old and smaller units with the ultra mega power projects.

2. Since 2002 India is engaged in the research and development of integrated gasification combined cycle (IGCC) technology programme which is expected to give results by 2020.

3. Integrated Energy Policy was implemented in 2005 to increase the coal plant efficiency from 30% to 39% which will result in two percentage points higher efficiency for new plant compared to reference scenario.

(ii) Policy measures in the **Industrial Sector**

1. Government of India is encouraging use of more combined heat and power (CHP) technology with increased use of biomass potential in the pulp and paper, textiles, chemical and fertilizer industries.

2. The National Steel Policy aims to reduce cost and improve efficiency and productivity of iron and steel sector. The Steel Authority of India has taken various steps to improve the operational efficiency and deployment of technologies to reduce energy consumption.

3. The Energy Conservation Act 2001 which stipulates the mandatory audit requirement in 15 energy intensive industries will reveal the potential for energy savings if the recommended energy efficiency measures are implemented.

4. Cement production will be less energy-intensive due to reduced energy intensity because of reduction in clinker/cement ratio.

(iii) Policy measures in the **Transport Sector**

1. India has introduced vehicle emission standards based on European Vehicle Emission Standards which has primarily impacted CO₂ emissions but has made a significant impact on fuel consumption.

2. India is stressing more on public transport and infrastructure development by introduction of rapid transit bus system and underground rail system.

3. India is moving towards vehicle fuel efficiency resulting from increased co operation with foreign manufactures and deployment of more advanced technology.

4. Indian Government has taken a decision for mandatory rating of vehicles by 2011 based on fuel consumption per kilometer and BEE will be responsible for administration of the programme and label vehicles as per their energy efficiency.

(iv) Policy measures in the **Residential Sector**

1. Bureau of Energy Efficiency has released a National Building Code for commercial and large residential buildings, with provisions for better building orientation, roof and wall insulation and the adoption of energy efficient lighting and air conditioning system.

2. Bureau of Energy Efficiency has launched National Energy Labeling Programme in 2006 which requires mandatory energy efficiency labeling of various electronic gadgets like CFL, refrigerator, air conditioners, electric motors and ceiling fans. BEE tends to achieve the target of average appliance efficiency improvement being 30% higher in 2030.

3. Bureau of Energy Efficiency has launched Bachat Lamp Yozana in 2008 to encourage the use of CFL in place of incandescent lamps.

China –Realising the need to reduce energy intensity several policy measures have been initiated in China.

(i) Policy measures in the **Power Generation Sector**

1. China has taken various policy measures to improve the efficiency of electricity use which will reduce the electricity generation by 12% as compared to Reference Scenario.

2. After 2015 China will be able to achieve increased efficiency of new coal fired power plants, the efficiency level of these plants are expected to be 39% in 2030 which is quite closer to the efficiency level of OECD countries (42%).

3. China has taken several steps for the faster deployment of cleaner technologies which includes super critical, ultra supercritical and integrated gasification combined cycle plants. Faster deployment of these technologies will increase the efficiency of new power plants.

(ii) Policy measures in the **Industrial Sector**

1. China has increased export tax by 5-10% in energy intensive product like steel & non metallic minerals and also decrease or elimination of export credits for energy intensive products like steel.

2. China has initiated Top 1000 Enterprise Energy Conversation Programme with the objective of managing the energy use at the top consuming 1008 industrial firms and utilities through energy auditing, reporting, formulating goals, incentives & investments.

3. In 2005 China took steps to promote industrial energy efficiency by closing inefficient small scale plants in energy intensive industries. Under this policy China has identified 250 million tonnes of small capacity will be eliminated and for iron ore production 100 million tonnes of outdated capacity will be eliminated by 2010.

4. China has taken policy measures for increasing the efficiency of energy use in iron and steel sector by increased use of scrap steel recycling.

5. The 11th five year plan has taken steps to increase the share of service sector in the GDP of country, so that by 2020 value added services would account for more than 50% of GDP.

6. China has the potential of implementing gas based ammonia production, if this process is introduced energy intensity improvement of more than 20% could be achieved.

(iii) Policy measures in the **Transport Sector**

1. China is giving several incentives to promote the use of public transport system like Bus Rapid Transit Development in major cities, providing subsidies to students for using public transport.

2. China has enacted a policy for early scrappage of vehicles , not for revenue passenger vehicles to be scrapped after 10/15 years, for revenue passenger vehicles to be scrapped after 8/10 years & trucks to be scrapped when they reach 10 years.

3. China intends to implements fuel tax on gasoline & diesel.

4. In April 2006 China implemented sales tax on vehicles.

5. In July 2006 China has implemented fuel economy standards for light-duty vehicles (LDVs). LDV are expected to be 40% more efficient than 2005 models, new trucks are expected to be 36% more efficient.

(iv) Policy measures in the **Residential Sector**

1. China Energy Label has been introduced for energy efficiency labeling for refrigerators, air conditioners and washing machines.

2. China has already introduced different building codes for three regional zones. In 2007 China has passed National Standard for Residential Buildings. It targets to reduce energy consumption in new buildings by 50% by 2010 compared to efficiency of 1980 buildings.

3. China has taken several steps for mandatory and voluntary certification and more stringent penalties to ensure the phase out of inefficient products.

4. China intends to provide fiscal incentives such as reduction of value added tax to make more energy efficient appliances cheaper for consumers and manufacturers.

5. China has taken various measures for the speedy deployment of advanced energy insulation for building and of conservation measures such as combined space heating and cooling systems.

A host of short run and long run measures have led to a reduction in energy intensity in India and China. If the consumers of the two economies pursue energy friendly lifestyle and the energy efficiency and energy conservation policies are implemented timely, the energy intensity in both the economies may remain constant or reduce further.

CONCLUSION

Even though India and China have been growing rapidly since 1980s their high growth rates have not been supported by high per capita energy consumption. If a similar growth pattern of reducing energy intensity is followed by them, then the two economies would experience energy-light growth. Reducing dependence on energy requirement and an increase in energy efficiency will help in achieving energy security.

This conclusion would also help in mitigating the thought that, since India and China have a large population as these economies would grow rapidly their demand for energy will be very high, that will lead to rapid depletion of energy resources of the world (Anup Shah).⁴

Energy-light model of growth can be emulated by the developing countries of Africa and Asia. Energy saving practices like, use of energy efficient appliances and public transport, and recycling of goods can help in reducing the demand of energy for urbanization. Demand of energy for industrialization can be decreased by conservation of energy in energy-intensive industries like, iron and steel, cement aluminum and fertilizers. Energy conservation and energy management policies can be framed specifically for power generation sector, industrial sector, transport sector and residential sector to reduce energy intensity. The lower the energy intensity, the more will a country have energy security. Growth rate of an economy can be increased rapidly with lesser dependence on energy.

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Notes

1. Greendex 2009 ranks average consumers in 17 countries that represent 57% of the worlds' population and in 2008 accounted for 80% of energy consumed.

2. India: Addressing Energy Security and Climate Change, Ministry of Power, Bureau of Energy Efficiency, Government of India, October, 2007

3. India: Addressing Energy Security and Climate Change, Ministry of Power, Bureau of Energy Efficiency, Government of India, October, 2007

4. (www.globalissues.org/article/595/energy-security, May 04, 2009)

WHAT THE ESSENTIAL COMPETENCIES FOR INTERNATIONAL MARKETEERS? AN EXPLORATORY STUDY

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The globalization of economies poses considerable challenges to companies. Firms are no longer protected by local governments nor can they afford to ignore non-domestic competitors. This context calls for an understanding of the important competencies required for the success of international marketing activities.

An exploratory study was conducted in Portugal to identify the competencies that managers perceive as more important for dealing with the complexities of export, international and global marketing. Respondents recognized the challenges specific to marketing at the international level and the need for specialised knowledge in international marketing environments and in operational techniques, as well as the importance of specific competencies for international marketers.

INTRODUCTION

The globalization of economies poses considerable challenges to companies. This painful reality has been felt increasingly by Portuguese companies, who now realise that the small-scale of the Portuguese internal market can compromise their firms' future. In such a context, going international is vital for companies, including Small and Medium enterprises (SMEs), even for those which traditionally would not consider marketing opportunities abroad.

Becoming active and successful in international markets, however, poses substantial hurdles to marketing managers. Indeed, understanding international markets and competitors and defining marketing strategies is arguably more complex than those deployed in domestic markets.

This raises the question of what kind of expertise (competencies and knowledge bases) do international marketing managers need to help companies compete internationally. Identifying such competencies required for international marketing operations may greatly contribute to understand success requirements in international markets. Such an understanding may offer important insights for promoting internationalisation efforts at different levels: policy making, industry boards' activities and companies recruiting and training activities. Additionally, it may have important consequences for universities, contributing for designing adequate graduate and post-graduate international marketing (Beamish and Calof, 1989; White and Griffith, 1998; Yenyurt et al. 2005; Gray et al 2007).

In addition, a general concern in business-related subjects' teaching concerns whether formal university education is relevant from the companies' perspective, i. e. whether university education is effectively capable of developing the capabilities required by companies (Beamish and Calof, 1989; Gray et al, 2007). Beamish and Calof (1989) contended that the content of international programs should be set in consultation with industry so as to assure its relevance.

Thus, several studies surveyed practitioners' in order to identify the knowledge base and capabilities perceived as important for different management functions. Such studies may prove useful in highlighting areas and methods of training which are relevant for inclusion in academic curricula and training programs. In what concerns International Marketing, however, there is a dearth of research addressing the development of global knowledge competencies (Yeniyurt et al, 2005) and to the best of our knowledge no such study has been conducted in Portugal.

This paper describes the result of an exploratory study carried out to identify the competencies deemed most important for marketers and managers dealing with international markets and consumers, as well as their educational background. The paper is organized as follows: first, literature regarding development of international competencies is reviewed, then the study methodology findings are presented. Conclusions and implications follow.

LITERATURE REVIEW

Markets have become global for most industries and services. Firms are no longer protected by local governments nor can they afford to ignore non-domestic competitors (Cavusgil, 1991; Yeniyurt et al, 2005). Thus, the importance of internationalisation for companies' long term survival has been emphasised, for example Yeniyurt et al (2005, 2) contends that "having a global orientation is no longer a luxury, but a necessity for economic survival in a large number of industries".

Becoming active and successful in international marketing (IM), however, poses considerable challenges to international marketing managers (IMM). Among these, are questions related to international marketers' competences and expertise. In fact, international marketing presents specific challenges: "International marketing managers have a role that differs substantially from that of the national marketing managers with whom they deal. It is not the same function just for a larger, or global market" (Ambler et al, 1992, 47). In a similar vein, Harvey (1996, 103). contended that "The quality of managers in foreign assignments appears to be even more critical than in domestic operations"

Thus, it has been argued that IM requires specific competencies and knowledge base (Johanson and Vahle, 1977, Ambler et al, 1992, Beamish and Calof, 1989, Monye, 1995, Gorchels et al, 1999; Yeniyurt et al, 2005).

The process model of internationalisation highlighted the impact of knowledge, both objective and experiential, in the degree of internationalisation of the firm (Johanson and Vahle, 1977). Objective knowledge refers to issues such as market methods, statistical tools and can generalised across markets while experiential knowledge pertains to culture, distribution systems and market characteristics. Experiential knowledge influences perceived market uncertainty and therefore impacts on commitment to internationalisation (Hadley and Wilson, 2003). The knowledge base required for firm's internationalization includes "foreign institutional knowledge, or knowledge of governments, institutional frameworks, norms and

culture, (and) is significantly related to the degree to which firms have invested in foreign assets and, marginally to the foreign earnings achieved" (Hadley and Wilson, 2004, 712).

De Toni and Nassimbeni (2001) emphasised the role of characteristics of the entrepreneur (decision maker's export expectations, level of education and amount of experience, attitudes towards risk, etc) as variables explaining firm's propensity for exporting and level of success abroad.

Consequently, although the barriers faced by companies when going international are numerous, the fact that competencies-related barriers constitute an important constraint especially for SMEs in accessing international markets has been acknowledged by academics, practitioners and policy-makers alike.

Policy-makers have highlighted the need for developing specific capabilities for international marketing. OECD-APEC listed a number of barriers to SME's internationalization (OECD-APEC, 2006) which included identifying international business opportunities, locating and analyzing suitable markets, contacting potential overseas customers, obtaining reliable foreign representation, accessing finance for internationalization, Engaging specialist staff to assist with the management of international markets, etc. According to the "Final Report of the Expert Group on Supporting the internationalisation of SMEs" (EU, 2007), these problems can be grouped into three groups of concern: Insufficient managerial time and/or skills required for internationalization; lack of financial resources and lack of knowledge of foreign markets.

Concern for the need for specific competencies in international marketing has been expressed by managers as well. For example, an empirical study conducted in UK managers concluded that "75% of the sample felt there was need for specialized knowledge of international marketing management for companies to succeed in their international operation" (Monye, 1995: 8). However, the lack of qualified human resources has been acknowledged: "the shortage of qualified international managers to expatriate is considered to be one of the most significant constraints on the expansion of multinational corporations" (Harvey, 1996: 103).

Concurrently, several studies documented the importance of an internationally oriented education system as a means to enhance companies' and countries' competitiveness at the international level (Beamish and Calof, 1989; Gniewosz, 1996; White & Griffith, 1998). A comparative study of the 21 top US graduate programs in international business and found that the majority of the programs had internationalised the curriculum to only a small extent while experts emphasised "the need for international managers to understand the interdisciplinary nature of problems in a culturally diverse manner" (White & Griffith, 1998, 110). In general, these studies expressed their concern for the fact that course content had not achieved the practical content orientation to cultivate high-caliber global managers" (White & Griffith, 1998, 110-11).

Ball and McCulloch (1993) studied the views of American multinational CEOs on the importance of international business education and courses such as Principles of International business, International Marketing and International Finance were valued. Nevertheless, 80% of the respondents agreed that the international aspects of the business were learned by employees on the job.

In fact, the suitability of academic programs to meet practitioners requirements is a recurrent concern among business disciplines and the question whether IM curricula are responsive to corporate needs has also been addressed (Beamish & Calof, 1989; White & Griffith, 1998). In general, these studies pointed to the conclusion that training for IMM calls for collaboration between Universities and the practitioners' (Beamish & Calof, 1989, Monye, 1995).

This brief literature review identified a gap regarding the understanding of IMM' competencies. We carried out an exploratory study in order to identify the competencies that managers perceive as more important for dealing with the complexities of marketing at the international level.

METHODOLOGY

As a preliminary step, a content analysis of recruitment ads for IMM published by a major national weekly newspaper during a 30 day period was conducted. These were analyzed in terms of required education, experience, and competencies.

Personal interviews with IMM and Human Resources managers of exporting companies were conducted. The list of exporting companies of the official Portuguese Export Agency (ICEP – Instituto das Empresas para os Mercados Externos – www.icep.pt/www.portugalinbusiness.com) was used to identify potential companies for the interviews. A convenience group of companies from diverse industries were identified and their international marketing managers were contacted; Notably, textile companies are predominant reflecting the structure of the industry in the northern region of Portugal, where interviews were held.

Nine in-depth interviews of about 60 minutes were conducted. Most of the interviews were conducted by two researchers. Interviews were transcribed and content analyzed. All companies were strongly orientated to international marketing with sales in international markets of up to 99% of total sales. Although none had an international marketing department, interviewees were mostly top managers, either marketing managers or CEOs, directly involved in setting international activity strategies.

RESULTS

The content analysis of recruitment ads revealed that employers typically seek for higher-education individuals, with previous experience in international markets preferably in the same industry. Fluency in English was required, and in some cases other languages were valued. Interpersonal, organization and marketing management capabilities such as negotiation and information technologies were strongly emphasized.

In what concerns the interviews, in spite of the importance of international sales and/or international activities, none of the companies had managers with specific educational background in IM. In general, respondents highlighted the specificity of IM activities, the need of specific theoretical training and experience, the importance of strong technical knowledge of the value chain, the need for considerable investments in time and financial resources in order to obtain results in international markets, and the lack of reliance on the government as a source of export knowledge and information.

Additionally, respondents agreed that training in marketing, and specifically in IM, could help solve some of the problems related to their international activity and sales. These include the difficulty to identify and deal with differences between domestic and international markets; handling the bureaucratic/red tape in foreign markets; difficulty in establishing and maintaining relationships with international partners, including communication and cultural problems; difficulties in launching brands internationally; international segmentation and positioning; and the high level of resources needed for marketing internationally, difficult to obtain for individual companies.

Identifying required competencies for IM was a key driver of this research. Several competencies deemed important for IM were pointed by respondents. These can be grouped under three types: Personal and interpersonal competencies, Supporting competencies and specific competencies.

Personal and interpersonal competencies

Respondents highlighted the importance of personal and interpersonal competencies as well as personality-related traits needed to be successful in this area. Specifically, organization, communication, and cross-cultural skills such as adaptability and flexibility and curiosity and openness to new cultures and behaviours.

Supporting competencies

Issues covered were the importance of quantitative methods, information technologies, and foreign languages. English was obviously required, but other languages such as Spanish, Russian or Chinese were also highly valued.

Specific competencies

Specific competencies required for international marketers were grouped into two major groups:

Technical and substantive knowledge

Included here were knowledge of the international system, international economy, and international commerce needed to understand the dynamics of international negotiations and cooperation, namely questions such as international agreements and organizations; international law and contracts; negotiations and alliances; logistics; custom formalities; and exchange rate fluctuations.

Strategic and operational marketing skills

These competencies pertain to the need to fully understand the value chain of the business and the technical aspects of the product and process, including sourcing decisions and outbound logistics;

DISCUSSION AND CONCLUSIONS

This exploratory study sought to evaluate the requirements for success in international marketing, including the identification of main problems in international marketing and the needs of employers in this area.

The specificity of international marketing was recognized by respondents, who acknowledged that international marketing activities requires specific theoretical training, experience, as well as a strong technical knowledge of the business value chain.

The lack of qualified human resources to work in this area was highlighted by several respondents. Companies rely on experience and in-job training to develop expertise in international markets. Experience, preferably in the same industry, was also evident in the recruitment ads and interviewees highlighted the importance of recruitment within the industry.

However "learning 'on-the-job' is often not an optimal mode for acquiring exporting knowledge" (Samiee and Walters, 2000: 89). Offering executive training seminars in international marketing and international business may, thus, represent an opportunity for universities. It has been suggested that, in times of economic constraints which constraint companies to recur to expatriate, "the education process assumes even greater significance in creating international knowledge" (Cavusgil, 1991: 93). This type of offering presents specific requirements. For example, a study on the perceptions of export education revealed sporadic and regular exporting firms have different requirements of regarding this type of training programs (Samiee and Walters, 2000).

Improving course curricula in order to allow students to develop and train these competencies will certainly provide companies with more qualified human resources for successful international marketing. Although experience, by definition, cannot be taught, different pedagogical methods provide hands-on-reality learning environments. Active learning such as project-led education-based methodologies and case studies can be used as experience-based approaches allowing enriching students' problem solving capabilities.

The identification of essential competencies for IM constitutes an important contribution of this study. The importance of cross-cultural competencies has been highlighted. Cross-cultural competence has been defined as "an individual's effectiveness in drawing upon a set of knowledge, skills, and personal attributes in order to work successfully with people from different national cultural backgrounds at home or abroad", (Johnson et al, 2006, 530). This is, thus, a particularly relevant requirement for engaging in mutually satisfying inter-cultural encounters which requires further attention from an international business perspective (Johnson et al, 2006).

Cross-cultural competencies can be improved through experience and cross-cultural sensitivity training. Thus, it is important to provide students with opportunities for cross-cultural environments and contacts. Exchange programs such as EU Erasmus can contribute towards this end however more systematic approaches towards this end may be implemented. Kayes et al (2005) identified the following competencies for cross-cultural knowledge absorption: Valuing different cultures; building relationships within the host culture; listening and observing; coping with ambiguity; translating complex ideas; taking action and managing others.

The importance of foreign languages is another question which can be stressed. This finding is in accordance with the results of different studies which have acknowledged the need to include foreign languages in international business programs curricula (Grahm and Van Bloomen, 1995; Shanahan, 1996). The importance of language as a condition for developing cross-cultural competencies cannot be understated: "The importance of multi-lingual competence in the contemporary business environment is so palpable and so universally recognized as to be a cliché" (Shanahan, 1996). Foreign language knowledge is not only required for effective communication in foreign countries, as it constitutes a means to understand culture (Kayes et al, 2005).

Although the study has limited generability, these results provide implications which can contribute to improve graduate and executive education course design in the area of International marketing and business.

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AN EVALUATION OF THE USE OF COMPETENCIES IN HUMAN RESOURCE DEVELOPMENT – A HISTORICAL AND CONTEMPORARY RECONTEXTUALISATION

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Competencies have come to play a central role in a wide range of settings in United Kingdom public and private sector contexts. In many regards, these developments reflect wider international and global discussions and movements concerned with competency and how to assess, nurture and develop it.

The paper provides a historical contextualisation of competencies in the United Kingdom. In particular it outlines a brief history of the evolution of competencies in this context underlining the recent and rapid emergence and implementation of competencies in a wide range of organizational and human resource development situations. The paper examines the nature of competencies and the epistemological and ontological paradigms on which these approaches are couched in a British historical socio-cultural context. Within that context, many of these approaches (herein the paper pays particular attention to the British National Vocational Qualification System – NVQs) are underpinned by an empirical, pragmatic and ultimately modernistic, positivistic predilection. In an attempt to reappraise this rigid and highly structured representation of competencies, the paper draws on the resources of Critical Management approaches and notions of 'lived experience'. In this way, it aims to contribute to the small number of marginal revisionist voices in the mainstream competencies literature. This is supported by a qualitative methodology built on an in-depth two-year ethnographic study (employing participant-observer methods) of a consultancy delivered training programme for customer service competency based vocational qualification in a water utilities company based in the north of England.

Overall, the paper provides an assessment and a critique of the experience of competencies and vocational training in a United Kingdom and finds that, in the context examined vocational qualification competencies frameworks do provide a structure framework with which to catalogue employees' work and roles. However, they are weak at capturing and portraying the rich panoply of multifarious emotions and social interactions that take place in the workplace and everyday job life.

Key words: competencies, positivism, critical, lived experience.

INTRODUCTION

Competencies have come to play a central role in a wide range of settings in United Kingdom public and private sector contexts. In many regards, these developments reflect wider international and global discussions and movements concerned with competency and how to assess, nurture and develop it. The paper provides a historical contextualisation of competencies in the United Kingdom. In particular it outlines a brief history of the evolution of competencies in this context underlining the recent and rapid emergence and implementation of competencies in a wide range of organizational and human resource development situations. The discussion examines the nature of competencies and the epistemological and ontological paradigms on which these approaches are frequently couched in a British historical socio-cultural context. In an attempt to reappraise competencies, the paper draws on the resources of Critical

Management approaches and perspectives and, in particular, embraces notions of 'lived experience'. In so doing, it combines with the small number of marginal revisionist voices in the mainstream competencies literature. This is supported by an in-depth two-year ethnographic study (employing participant-observer methods) of a consultancy delivered training programme for customer service competency based vocational qualification in a water utilities company. Overall, the paper provides an assessment and a critique of the experience of competencies and vocational training in a United Kingdom.

A Historical Contextualisation of Competences in the United Kingdom

The last three decades in the United Kingdom have witnessed a widening role for competencies and related terminology in the workplace and increasing attempts to classify behaviours and attributes required for varying job situations. Indeed, talking about the growth of competencies in the 1980s and 1990s, Hirsh and Strebler (1994, p.81) suggested that the development of competency based training for organizations emerged as a '... a veritable industry in the late 1980s and ...into the 1990s...' and Sparrow and Bognanno (1994, p.57) that 'Competency based approaches [have] been a rising star'. In turn Garavan (2001, p.144) notes 'The increased usage of competencies is also reflected in the burgeoning academic literature on the topic'. In the intervening period, vocational and competency based training have witnessed a range of transformations and remains prevalent.

Competencies grew out of a response to increasing concerns and a recognition in the 1980s that the United Kingdom was falling behind other national economies with regard to skills and qualification levels in the labour force and notional competitiveness (Edwards-Zara, 2005, p.420). They were also viewed as a more individually focused and non-elitist qualification in comparison, for example, with traditional classroom, theory-intensive further and higher qualifications (Pate, Martin, Robertson, 2003, p.172). These concerns were manifested in government reports such as the (now defunct) Manpower Service's Commission *New Training Initiative: an Agenda for Action* (Manpower Services Commission, 1981) and the government white paper *Working Together, Education and Training* (Department of Education, 1986). The central tenet of these policies was the initiation of an employer-based system of training predicted on consolidation and formalisation of job roles and competencies across a range of industrial and business sectors. The Management Charter Initiative (MCI) played an early central role in established the occupational standards for management that would link into the creation of vocational qualifications.

Identified competencies are typically constructed into competency frameworks. These frameworks may be developed within a given company or, alternatively, the framework might be adopted from an existing national qualification system developed, supported and administrated by a network of government departments, quasi-government and private organizations. One of the difficulties with generic frameworks is that they may apply only generally to a specific company situation. This has drawn charges against them with regard to their relevance (Hirsh and Strebler, 1994, p.90)

In the academic domain, a key early commentator on commentators was Boyatzis (1982) following the work of McClelland (1973). His central contribution was the need to achieve performance through the identification of the underlying personality traits, skills and abilities

within the job. In particular, what attracted the attention of organizations and governments was the possibility of a systematic way of managing superior performance of individuals in a given population and of measuring the associated training inputs and achievement outputs (Gibb and Megginson, 2001,p.152). In particular, Boyatzis research identifies important managerial competences in notional 'soft skill' domains such as, among others, 'efficiency orientation' 'concern with impact', 'proactivity', 'self-confidence', 'conceptualization' 'use of socialized power'. As the academic discussion gathered pace in the 1980s a not always useful series of arguments concerning appropriateness of nomenclature were perhaps unavoidable. Not least of all was the debate about the important and difference of 'competences' and 'competencies' which does not need to be rehearsed here. Suffice to say, nevertheless, that 'competencies' emerged as the term in common usage in the contemporary era (Sparrow and Bognanno, 1994, p.58)

The attention given to competencies stems from a long post-war malaise and transition in the United Kingdom economy concerning performance, efficiency and effectiveness. This was largely the residue and impact of movements and discussion taking place in North America and this was perhaps an inevitable part of a well rehearsed dialectic between the United States of America and the United Kingdom. Indeed, in analysing the influence of American management thought and practices on a range of European countries, Engwall and Zamagni (1998) characterise the United Kingdom as a 'late adopter'. This is certainly the case in the area of competencies where the movement followed on from the work in the United States by McClelland (1973) and Boyatzis (1982).

The development and adoption of competencies has been carried out based on a number of assumptions and desired outcomes. These include the establishment and attainment of an *objective* measure of being able to do all, or part, of a given task. There are many different kinds of competency discussed in the various areas of business and management literature. For example, it is possible to talk about individual or organizational competencies. Murray (2003, p306) describes these as:

- (1) *Personal (or management competencies)*. Those competencies that comprise personal attributes, skills and behaviours to perform a function or task of a job in a designated ...way
- (2) *Organisation competencies*. Those competencies defined by processes, systems and practices (e.g. training methods, performance appraisal reviews, motivation techniques, change programs, technical processes) that enable any firm to turn personal competencies into organisation-wide competencies...'

In turn, strategic management discourse has dedicated time to analysing the concept of core competencies of the firm (Prahalad and Hamel, 1990). This particular approach reviews what abilities and skills the firm possesses at present, and may possess in the future, and how these might be configured in order to achieve competitive advantage. Such resource-based competencies may be knowledge based 'they are not solely human but rather composed of human capital, social capital (important relationships that exist) and organizational capital (i.e. processes, technologies, databases) (Snell et al in Wright et al (2001)) It is frequently the case, to

discuss organizational competencies in terms of tangible (financial, technological, physical, human) or intangible (brand name, reputation, know-how) (Bratton and Gold, 2007, p.55)

In relation to personal competencies Woodruffe (1992, p.17) states that competencies are 'the set of behaviour patterns that the incumbent needs to bring to a position in order to perform its task and functions with competence'. Whereas, Bratton and Gold propose that 'competencies' are the:

'Underlying characteristics of a person which result in competent or effective performance taking into consideration the nature of the task and the organization context' (Bratton and Gold, 2007, p.580).

In essence, both definitions point at what the person concerned brings to a given role. At the level of the individual, competencies have been stated as typically comprising 'three recurrent features:

- a competence is seen in the context of a particular job or job role and the organization in which that job exists
- Competences are positively associated with superior performance
- Competences can be described in terms of specific behaviours which can be observed in the job' (Hirsh and Strebler, 1994, p.83)

The Income Data Services (2008) argued that competencies usually define behaviours that an employer values and believes will play a role in the organization's long-term goals and that competencies can usually be seen as either behavioural or technical.

There is an interesting and important nexus to be made between organizational and individual competences in that they are both focused on with the shared, ultimate, objective of achieving competitive advantage at a range of levels leading up to advantage for the entity of the firm as a whole. Competencies, whether, organizational (tangible or intangible) or individual are intended to align, marry and support larger organizational goals, objectives and strategies (Hafeez and Essmail, 2007). Margerison (2001) has also pointed up that there is too much time dedicated to discussing individual competencies when in fact it is team competencies that are as, if not more, important.

A number of advantages and disadvantages became apparent in the early period of the introduction of competencies to British work settings. On the positive side, competency approaches underpinning a wide range of vocational awards have been credited *inter alia*, with clearly identifying needs for employees and potential managers, facilitating and improving selection and recruitment, allowing a basis of comparison between employee performance, engendering a common language and scheme for assessing ability and skills, providing a basis for people to self-assess and monitor progress, and systematising job role and content, and identifying the skills and competencies that will ultimately lead into overall better corporate performance and competitive advantage.

On the less positive side, competencies and vocational approaches can be seen as creating difficulties because: they are susceptible to being applied a range of varied and un-uniform manners, assessors may assess in variable and unreliable manners, there is a danger that the

development of competencies at the individual level will not result in an improvement in organizational performance. Assessment of competences tends to be backward, rather than forward, looking (i.e. concentrate on what the person can already do rather than their potential), standardised competency frameworks may seem inflexible or rigid when applied to different organizational settings and contexts, it may be more orientated towards a UK/USA derived approach to development and therefore have limited international transferability ((Sparrow and Bognanno, 1994, p.61) Thorpe and Holman (1994), in examining a case study of the MCI competency framework as applied to higher education settings, identified that the 'knowledge' aspects of skills and situations tend to be weakly addressed due to an over focus on behaviour and outcomes. Their insight may have implications across many vocational qualification experiences.

Most importantly, yet frequently overlooked in the commentary on competencies in the United Kingdom context is the epistemological and ontological provenance of the approach. There are two points to make here, one pertaining to a Western general epistemological orientation and the second underscoring a particular set of embedded values in the United Kingdom. As indicated above, the United Kingdom has been marked as a 'late-adopter' of management ideas, techniques and philosophies from the North American model (Engwall and Zamagni, 1998). In the post-WWII era, management and organization thinking, teaching, research and practice in the North American sphere has been strongly informed by modernistic and positivistic concepts and constructs (Lyotard, 1984, Bratton et al. 2007). The normative 'late-adoption' pattern has meant that the United Kingdom emulates and assimilates much of hegemonic American practice. It is therefore no surprise to learn that over the last sixty years modernism and positivism – with their reification of linearity, notional objectivity, scientific experimentalist method, representational and reductionist categorisation and typologies have become the dominant frame of reference in British Business Education and much wider organizational life.

This broad cultural infusion has been sown on an accommodating ground of longstanding British sensemaking (Weick, 1995) through the philosophical traditions empiricism and pragmatism. (McEwan, 2001, pp73-75 drawing on the work and legacy of Bentham (1748-1832) and Mill (1806 – 1873). It can be readily seen that many of the philosophical commitments of this amalgam of modernistic positivism and empiricism and pragmatism dovetail extremely well with the delineated, categorised, experienced-based (cusp anti-intellectual) framework that has come to represent the British National Vocational Qualification system.

In particular, a charge that may be levelled at a number of competency approaches is that, due to the limitations of the paradigm(s) in which they are rooted, competencies are less predisposed to represent or capture 'soft-skill' competencies pertaining to, for example, relational, personality, behavioural areas (i.e. as opposed to supposed hard skills areas – accounting, planning, budgeting). This is not to say that such dimensions are not sought to be addressed by competency frameworks. Moreover, it is precisely this sort of competency that has been discussed in relation to manager and senior manager work. It is, however, the case that the human behavioural dimensions are often addressed in a mechanical, unproblematised and weakly situationalised contextualised manner. This has been alluded to some extent above however in order to illustrate the form and impact of this issue it will be useful to begin to focus

attention on a particular approach to competencies, namely, the British National Vocational Qualifications Framework.

Competencies in the United Kingdom - Contemporary Context and Issues

Competencies continue as very much part of the *modern* business setting being used in many sectors: education, health, public management, supply chain management, food and wine, library services, facilities management, leisure and hospitality among many others (Ashton, 1996, Clark and Hinxman, 1999, Brophy and Kiely, 2002, Ashcroft, 2004, Bouzdine-Chameeva, 2006, Barth, Godemann, Rieckmann and Stoltenberg, 2007, Institute of Physics, 2009, Department of Health, 2009, Halley and Beaulieu, 2009). Equally, competencies for various types of employee: directors, managers, other employees and spheres, for example, leadership, and careers have been a focal area in the literature (Margerison, 2001, Thach and Thompson, 2007, Spendlove, 2007, Cappellan and Janssens, 2008). Competencies have therefore infused and imbued every aspect of organizational life. As such they have become a normative way to attempt to address and account for thought, action and behaviour in the contemporary British organization. Watson (2002, p.428) points up issues of commodification and marketisation that intertwine with competencies. He discusses the notion of 'portfolio or boundaryless careers' and suggests that the development by individuals of 'marketable competencies' has emerged as an important element of such pathways.

As has been discussed above, the term 'competencies' is employed in a range of ways and contexts, organizational and individual competencies, competencies relating to a particular role or business sector as in vocational qualification frameworks, and also, manager competencies – the skills, traits and attributes that managers might need to apply to be able to perform their jobs effectively. The evolution of ideas relating to organizational competencies and individual (employee, manager) competencies have been introduced earlier and it is now to individual vocational qualifications within an organizational context that the discussion turns as this is particularly germane to the case study used to gather field data.

The United Kingdom National Vocational Qualifications Framework

The key body in the United Kingdom context for developing, structuring and controlling competency based vocational qualifications is the National Vocational Qualifications Authority (NVQA) and the Scottish Vocational Qualifications Authority. This is aligned with the Qualifications and Curriculum Authority (QCA). Vocational awards can be attained at five different levels, identified as Level, 1, Level, 2 and so on up to Level 5. One of the key roles of the Authority is to establish the 'Standards'. The Standards map out all the competencies and skills that a prospective candidate must fulfil to be able to achieve the units of a given vocational award. All vocational qualifications are made up of 'units'. Units cluster together particular typical situations likely to be encountered in a given business role and area. For example, in the case of the Customer Service Award (discussed further below in relation to the field research) the Level 3 Award is comprised of units (in turn comprised of sub-units termed 'elements'). The Units/elements are entitled, for example:

'Unit 205, Making Customer Service Personal/Element 205.1 Identifying opportunities for making customer service personal'

'Unit 205, Making Customer Service Personal/Element 205.2 Treat your customer as an individual'

'Unit 211 Delivering Customer Service on Your customer's Premises/Element 211.1 Establish a rapport with the customer,

And, so on and so forth, depending on the unit that are identified as necessary for coverage. An award typically would be constituted of a number of such units to be completed. Candidates undertaking vocational qualifications are assessed by qualified Assessors. To be able to undertake this role, assessors need to have undertaken the vocational award for assessing candidates to ensure that they have the competencies and that they are competent to do this. Importantly, Units often point at behavioural or attitudinal dimensions of employee candidates. It is, in fact very much at the discretion of the assessor concerning the degree to which these have taken place and been witnessed.

Assessment of candidate competencies can take place through a number of methods. These include *observation* by the assessor of the candidate carrying out their role. In some awards candidates are allowed to simulate or show the role in action however, quite often, the demonstration has to be live and real. Also, it is possible for candidates to write *personal statements* of experiences and roles supported by evidential documentation like a report of notes. Alternatively, the candidate can ask someone for a *witness testimony* reporting on what they have done to demonstrate particular competencies against the standards. In addition, it might be that there is a document, such as the minutes of meetings, reports and so on and so forth that can be used as *document* evidence.

Operating in relation to the NVQA are a number of awarding bodies, such as the City and Guilds. In addition, there also exists the Learning and Skills Council, a quasi government department responsible for disbursing funds for the further education sector (relating to ages 14-19) and a range of ongoing supporting publications and materials (see Whiddett and Hollyforde, 2003, 2007 as illustrative of the repetitive nature of the work produced).

Typically the landscape of competencies in contemporary United Kingdom focuses on a number of recurrent concerns and approaches. Central to these is the notion of developing competency frameworks. The aim of a competency framework is to ensure fairness of comparison across job roles and staff. (Whiddett and Hollyforde, 2007, pp.7-36) In 2007 sixty per cent of organizations in the United Kingdom were reported as employing a competency framework for their staff and half of the organizations who didn't have one were planning to introduce one (CIPD, 2007, p.18). The primary uses these were used for was to underpin performance reviews and appraisals. Fifty-two per cent of competency frameworks were created in-house. A further thirty-three per cent were created in house with the assistance of consultants. A mere eight per cent claimed to use a framework developed by an external organization (CIPD, 2007, p.20).

In 2005 the United Kingdom government set up the UK Vocational Qualifications Reform Programme (Learning and Skills Council, 2009) This revisiting of vocational qualifications recognised and aimed to begin addressing a number of long commented concerns with competency based vocational qualifications. It sought to improve support from employers for the qualification. Hitherto it had been difficult to secure consistent and ongoing commitment

from employers to vocational qualifications. Employing organizations typically felt that the available competency based qualifications were too paper-bound, and bureaucratic and did not always seem to respond to and develop organizational aims. In tandem with this, the homogenous, and perhaps sometimes inflexible, standards that had been drawn up by qualification awarding bodies did not always seem to respond to individual learning needs. Finally, the government wished to see vocational competency based qualifications rolled out into additional business sectors and be able to recognise a wider range of achievement so as to support slipping government targets for further and higher education achievement. Moreover, there has been an attempt to make links to other grading systems. Overall, the review is to ensure that competency framework's are fit for purpose and meet organizational needs.

METHODOLOGICAL APPROACH

The study used an ethnographic approach (Van Maanen, 1978, Bryman and Bell, 2007, pp439-470, Eriksson and Kovalainen, 2008, pp.137- 153) Ethnography enables the researcher to use an array of qualitative techniques to examine a community in action in its natural, usual and everyday environment. In relation to Gold's (1958) well-cited classification of observer roles which embrace towards one end of the continuum 'complete participant', 'participant as observer' to, at the opposing end of the spectrum 'observer as participant' and 'complete observer', the research worked as a participant observer. This meant that he was totally implanted in the milieu of the CLO. Ethnography, as methodological approach was ideally suited to the study. The participant as observer also permitted unstructured and semi-structured interviews to be conducted (Maylor and Blackmon, 2005, pp.225-233). All data were recorded in the form of notes. It was deemed an unnatural intrusion to try to use recording devices because the respondents were not used to such an experience. Also recording would not have been easy in the day-to-day client calls. Moreover, many respondents would be worried what would happen to the tapes and feared they risked ending up in the hands of senior management.

In a study such as this it is important to underline the role of reflexivity of the researcher towards the individuals and groups researched and reciprocally by the people researched to the researcher (Alvesson and Skoldberg, 2000). The researcher spent many hours in the company of individual company employees, travelling many miles, visiting many clients together over many months. This provided an opportunity to socialise and get to know each other reasonably well on a personal level. The research embraced this subjectivity at the heart of the ethnographic approach of the research. Within the reflexive tradition of inductive research it is important to signal that for some respondents the researcher felt great empathy whereas with others no strong relationship developed. A couple of the employees become personal friends. Others were rude, unfriendly, aggressive or obnoxious towards the researcher and this never abated during the two years. Some were not unfriendly but were guarded and remote. One of the more extreme instances involved one elderly male worker who insisted on urinating into a bucket in secluded locations rather than find a public toilet. Clearly there was a gamut of behaviour and personalities. The researcher's background as someone with personal experience of a working class life and factory floor working meant that while alarming when they occurred none of the experiences were necessarily shocking.

The data analysis followed an inductive crystallisation process whereby the data were constantly reviewed in the light of repeat data capture. This form of review allow emergent themes in the data to be identified and analysed.

REFLECTIONS OF LIVED EXPERIENCE OF COMPETENCIES IN THE FIELD

The Field Research Organization

The field research was conducted in a large water utilities company employing approximately 5000 people located in the north of England. The author was part of a team of some ten assessors who were delivering a National Vocational Training, Level 3 qualification. He gained his A1/A2 Assessor Award during the process. The programme was targeted at ninety three Customer Liaison Officers (CLOs) who interacted on a daily basis with customers in the field. Each assessor was responsible for assessing approximately fourteen CLOs. The CLO role was the result of a change management programme and restructuring in the company. This had seen the creation of the new CLO role and the counterpart to this the Network Controller (NC) role. It was intended that the NC would look after the technical aspects of the network and would not have contact with customers. On the other hand, the CLO would be entirely customer facing and would no longer be involved with any technical aspects of the water supply network. Prior to the change the CLO and the NC role had not existed and both roles had been carried out by each member of the field team. CLOs used company white vans to travel around their designated area. Because half the original staff were now undertaking NC roles this meant that the CLOs were covering a territory surface area that was double what they had previously had to cover. On occasion, due to the scheduling at the central headquarters this could mean that CLOs would leave a customer visit and have to travel fifty miles to another visit and then return back to the area where they were previously for the subsequent visit resulting in very long journeys. The issue of poor scheduling was a recurrent issue and, together with the changing job role, was a source of great discontent and tension. The company was concerned about improving its ratings on customer feedback. It was assumed, without any major research, more on management intuition that it would be necessary to improve customer interaction with the newly formed CLOs. Overall, the changes were far from popular and had witnessed considerable discussion with unions and some acrimony over what was considered by the front-line staff to be an the ill-thought plan by management.

A Day in the Life of a CLO.

Typically this involved spending whole days with the CLO at a few weeks' interval. The day would include telephoning the CLO to arrange the visit arriving at the works depot or the CLOs home address to meet up and drive off together in the van. The day would comprise visiting customers houses and premises and entering customers' houses to discuss water supply and quality problems. Lunch and breaks times would be spent with CLOs in 'greasy spoon' basic workers' cafes. As the researcher became more friendly with and trusted by CLOs he would find himself doing their shopping, visiting family and friends and doing little errands as the CLOs fitted these 'unofficial' personal and domestic jobs into their planned and prescribed work routine. As such he witnessed and experienced a breadth of rich experiences with the CLOs.

INITIAL AND EMERGENT FINDINGS AND PRELIMINARY DISCUSSION.

The experiences from assessing and journeying with the CLOs produced a wide range of data. These data are still in process of being analysed and important themes and findings identified. For the purposes of presentation at conference the findings and accompanying discussion below provide indicative rather than a comprehensive discussion of what is planned in the final paper. Nevertheless, it is intended and hoped that this will facilitate the reader to obtain an impression of the relationship of the competencies experience to the employee/student CLOs, the assessor and other organizational actors. As indicated above, the data analysis is ongoing and themes are emerging and being consolidated. Four of these themes are presented below centred around competencies and resistance, competency frameworks as bureaucracy and anti-intellectualism, competencies as a device in a battle between managerialist and craft cultures, private and professional lives lived out in a competency framework.

A Theme of Competencies as Eroding Resistance

One of the key themes that came out of the research was the issue of resistance by CLOs to undertaking the qualification in the first place. The lead assessor on the programme suggested that in her experience this was not however typical. By way of illustration, on the first visit to a CLO the assessor got in the van and greeted the CLO. The CLO shouted:

‘So what the f*****g hell is all this NVQ competencies b*****ks about!’

(CLO ‘A’, 2007)

The assessor gradually built up a very friendly relationship with CLO A however the cynicism never really went away completely.

Many assessors on the programme reported various obstruction tactics to impede and delay their visits to CLOs. These tactics included cancelling appointments at the last minute, calling in sick on a given day. All of this was resonant of the forms ‘organizational behaviour’ characterised by Thompson and Ackroyd (1999). There was little doubt that the introduction of the competency framework was seen and used as a device to categorise and evaluate the CLO job. This afforded the opportunity for managers to have greater apparent say and control over CLO operatives. This was indeed true to some extent since what the job should consist of had now been made very explicit. Nevertheless, on a wide range of occasions older more experienced CLOs devised ways and loopholes to counter-manager the new job construction. This would involve exchanging jobs on work schedules with other CLOs unofficially to overcome the illogical allocation of jobs from the call centre. Equally many CLOs would go beyond the role of the CLO and assist clients, particularly elderly clients in ways that were not permitted. As an assessor the researcher was of course automatically complicit in these deviations – he was present at the time they occurred and had no power (or necessarily desire) to block them. In essence both respondent and researcher were engaged in a process of creating new sense of the job role. The competency framework assessing the workers actually had very little relationship to this. Rather it was the case that opportunities were looked for to tick any boxes possible. This was often a collaborative process between the researcher-assessor and the respondent-employee.

A Theme of Competency Frameworks as Bureaucracy and Anti-Intellectualism

A further emergent issue concerned the paperwork involved in the competency assessment process for the NVQ award. Many of the CLOs did not like the assessment documentation and needed considerable assistance with it. This was not always helped by the labelling of the documentation. The main form was called the 'MAD' form which stood for Multiple Assessment Document. Naturally this caused many amusing and witty remarks. It was clear that in some of the case of problems with documentation it was a matter of further resistance on the part of the CLO. However, in other instances, there seemed to be issues relating to levels of education. Nearly all of the CLOS were semi-skilled /skilled manual labour. The world of written qualifications was not a world in which they were automatically comfortable. Although it was not stated three CLOS left the role and returned to become Network Controllers (NCs) on the technical side because this group of employees were not at that time completing the NVQ. But the manner in which these few employees baulked at and postponed written tasks also alluded to a deeper problem of potential illiteracy or semi illiteracy. These workers had thrived well in a world that valued the empirical, the pragmatic, indeed the much admired British saying 'the university of life'. The paper based assessment in competencies proved a serious challenge.

With regard to the issues of skills, many of the CLOS (and especially the older longer serving ones who has a depth of technical knowledge and experience) felt and often stated that the NVQ and competency approach was actually part of a process of further deskilling of their role. Already they believed that the restructuring of their role was problematic and the competency based assessment was yet a further part of that. Moreover, they stated that the assessment was belittling and demeaning of their technical skills and craftsmanship.

'This NVQ is a load of cobblers isn't it, admit it, go on. All they want is a monkey to do this job – when the managers get that then they will be happy'.

(CLO 'D', 2008)

The temporal retrospective aspect of the award was a further difficulty. Many CLOs felt that they were getting an award for something that they already knew how to do and were doing. The sentiment of many was what was the point? As the process went on what become increasingly important and informative was the interaction and exchanges between the author as assessor and the CLOs. In many cases friendships struck up and it was the wider discussions over mugs of tea in 'greasy spoon' cafes they pointed up some of the lessons to be learned. These discussions were not couched in the dry language of NVQs but rather in an everyday vernacular drawing on common wisdoms.

A Theme of Competencies in a Conflict Between Managerialist and Craftmanship Cultures.

It is important also to draw attention to the wider context of the organization and the CLOs managers. There were many managers and a great number of 'special task forces' of contingent manager groupings. There was very little respect between CLOs and any of the managers. In truth, there was not a great deal of respect in reality for the managers by the assessor team. The assessor team had met the managers before and during the initiative in a range of meetings. The corporate culture typically produced highly political 'yes' (wo)men behaviour. Managers were

regularly moved between roles every two to three years. Therefore no manager would take a risk of making a mistake so as not to jeopardise his or her chances of a promotion in the long-term. As one CLO put it succinctly:

‘They’re all f*****g greasy pole climbers and arse lickers – no f*****g use at all’ (CLO ‘G’, 2007)

Concerning longer-term impacts and effects of the programme it is difficult to determine long-term sustainable consequences. For the organization senior management were able to say in corporate reports that 93 of their CLO operatives has attained NVQ level 3. This had considerable political capital in national competitor league tables. For the CLOs the consequence was varied. Older CLOs were often not interested in the vocational qualification process at all. A substantial number were concerned with their chances of retirement. Unfortunately, and perhaps linked to the socio-cultural characteristics of the group to some extent, many has experienced earlier divorces which had resulted in their pension being reduced and given to the divorced partner. This was a major topic of conversation for some of the CLOs. The younger CLOS were very different. These were typically not technically very experienced (the long route of many technical jobs no longer available in the contemporary structures of the organization) and so the NVQ in Customer Experience ‘legitimised’ them in the light of the new company ethos. For the older CLOs customer service was not a question of competencies. They viewed it more a matter of behaving in a decent human way to deserving customers. This could lead some older CLOs to mending broken taps and pipes for elderly people and doing them favours. All of this was in strict contravention to the new company rule book but they did it in any case. Matlay (2001) has suggested that in the case of small to medium sized enterprises competency approaches may not be as effective as large organizations. The present data indicates that this can also be the case in a very large company employing thousands of people.

The older workers in particular saw themselves as fighting against the competency framework on two linked fronts. Firstly, they felt that ‘management speak’ had taken over all parts of the company and that the competency programme was a part of that. At the same time they remembered nostalgically a period when they operate using a wide range of skills and exercised a great deal of judgement and independence. Managers were seen as increasingly impinging on this and the competency programme associated with the restructuring of the job was deemed to be a diminishing of their ‘craft’ role. They often reported that they were becoming mere cogs in a (modernistic) machine.

‘They knocked the passion out of me a long time ago. I still love the idea of this job but they keep bl**dy wrecking it. This NVQ id the latest in a string of bullshit with had thrown our way. They’ll end up getting rid of us and employing bl**dy robots!’.

(CLO ‘H’, 2007)

A Theme of Private Identity Lived Through the Competency Framework.

During the research project many events both professional and private happened to the employees. Partners become ill and were taken into hospital, children took important exams, some of the respondents separated and divorced, other respondents married (some for the second or third time), some respondents operated secondary businesses during their day job –

school visiting parties, jobs 'on the side' for extra money, a number were deeply involved in interest such as semi-professional motor-bike racing, hunting with hounds, shooting, taking several cruiseship holidays a year and so on and so forth. What role did the competency framework play in relation to these activities. There is no doubt that many of these activities made many of the respondents more rounded, mature, knowledgeable and even wise. The competency framework wrestled to try to respect and represent the talents that were being brought to the job.

Equally, there were the 'bad' days. The days when one man's ex-wife's solicitor had just written him a letter claiming a large proportion of his pension resulting in the fact that his retirement plans were now destroyed. The day when one of the CLO's announced to the author that his marriage was over and that by the time the competency project was over he would have left her. On those days, it was better 'not to talk too much about the competency work. The researcher assessor would sit in the van or a café and talk. The competency framework never officially acknowledge these many realities of the CLO operatives. Reflexively, the researcher worked hard with the competency framework to see what could be done for the CLO on such days and this might very well 'not noticing' failure to follow procedure exactly or a more grumpy approach.

The public too were not homogenous automatons. The competency framework offers some variation descriptors to not 'confused', 'very please', or 'angry' customers contexts. Clearly, these are limited descriptions of the rich panoply of behaviour that might be experienced on a given day. Therefore the competency frameworks not only weakly represent the experience as lived by the employee but equally it portrays weakly the client or customer also.

As stated above these comments provide the introductory analysis of the data for the purposes of discussion at conference. The evaluation and analysis of the data is an ongoing process and the intention is to develop and consolidate a range of emergent themes. Nevertheless, there is little doubt that there is considerable scope to apply in a more concerted way critical, social constructive and lived experiences lenses to these situations to be able to bring a critical realism to the study of competencies in the United Kingdom context.

COMPETENCIES – A CRITICAL PERSPECTIVE ALTERNATIVE INSIGHT

While competencies' approaches and the debate surrounding these has made some progress in trying to distil and categorise the skills that delineate and identify what an employee or manager need in their work role, it is equally important to say that this approach has not been without its limitations (Watson, 200, p.43). The key limitations revolve around whether or not to accomplish such a project – in a highly complex world of human interaction is it possible to isolate human skills employed in the world of work? This points at the limitations in the modernistic and positivistic paradigm in which competencies are rooted. Equally, while competency assessment frameworks try to take account of contextual and situational factors, again, this is often achieved only in a limited manner whereby, for example, the assessor of the competency has to observe the competency in a range of different settings. For example, this might be offering customer care to (a) a customer who is angry (b) a customer who is confused and so on and so forth.

As the world of management and organizational theory has evolved so have the demands on competencies frameworks in relation to it. There is no doubt that in some instances, competencies and especially rigid or prescribed competency frameworks may seem artificial or even counter-intuitive to common sense. For example, in order to achieve a given vocational qualification it might be stated in the competency standards for the award that the participant/student needs to do or demonstrate skill or personality attribute 'X'. In the 'real-life' circumstance this might seem illogical or even ridiculous. For instance, in a door-to-door customer service context – showing somebody in extreme distress your company ID-card and introducing yourself formally before controlling the immediate situation! McKenna (2004) raises this point and calls for a role for 'common sense' in applying and working with competencies. Rather than slavishly following only a 'tick box', he suggests, there is a need to apply a more everyday sense-making. But as Weick (1995) as pointed up 'common sense' itself is not always that easily defined or shared between individuals.

Watson (2002, pp.446-447) underlines the dangers of the way consultants adopting and rolling out such techniques simply do little more than 'commodify' the concept and reduce it to a series of emotional traits that managers must adopt. As a response Watson suggests:

'The danger here is that we are taken back to the type of thinking about managerial competence ... that which saw competencies as inbuilt characteristics or 'traits' of human individuals existing in isolation from their organisational context. It is much more helpful to see competencies, instead, as emergent predispositions of people to act in certain ways in the context of relationships, cultural assumptions and ongoing learning and adaptive processes. The concept of emotional intelligence, for example, is likely to be more useful for understanding manager effectiveness if we do not focus on the extent to which managers are emotionally intelligent but focus on the extent to which, in particular organisational contexts, managers act in an emotionally intelligent way' (Watson, 2002, p.447)

In the edifice and structures that have grown up around discussions on competencies it is easy to overlook that a key question associated with the entire competency debate is what makes some managers [or employees] more competent than others. (Watson, 2002, p.292)

In so many regards competencies approaches epitomise modernism and managerialism. Here perceptions of managers revolve around preoccupations of measurable performance and output at the expense of a genuine concern and insight on the social dimensions. This is derived from a long-standing hegemonic tradition of positivism in management and organization studies in the post-WWII period (Watson, 2002, Linstead, Fulop and Lilley, 2009) Aligned and compounded with this, the United Kingdom has a tradition of empiricism, pragmatism. Even anti-intellectualism. As indicated above, these traditions are long established (McEwan, 2001, pp73-75 drawing on the work and legacy of Bentham (1748-1832) and Mill (1806 – 1873). Based on the above characterisation it is possible to say that competencies fit very well within these traditions.

A drawback of the modernistic and positivistic conceptualisation and epistemological grounding of competencies is that they can be charged as reductionist in the way in which they confine and constrain a rich human experience or interaction into a ticked box of 'action achieved. The boundaries drawn around NVQ elements and units are artificial boundaries.

Although not capitalised on, such observations are long standing. Canning (1997) has suggested that vocational and competency based approaches cannot fully assess aspects such as interpersonal relationships and social contexts. In this vein, Pate, Martin and Robertson (2003, pp.169-171) have pointed up the possibility for viewing competencies through a subjectivist or constructivist approach whereby the person doing the work and undertaking the qualification constructs the *meaning* of their work.

Given these reflections, it seems therefore there is scope to revisit and reconsider competencies and competency training in an alternative way. This would involve drawing on more interpretive, constructionist and critical ways of making sense of competencies. In tandem with this, it is possible to draw on the dynamic notion of 'lived experience' to try to draw out a richer representation of human experience rather than the constrained and limited representation offered by competencies. The paper seeks to surface tensions between these prevalent "normative" or representationalist presentations (Chia, 1996; Watson and Harris, 1999) and a more marginalised commentary in extant accounts. This paper simultaneously surfaces and develops a more emotive and "lived experience"-type exploration of competency based processes (Knights and Willmott, 1999; Fineman, 1993; Fineman and Gabriel, 1996; Gabriel, Fineman, and Sims, 2005). The *a priori* contention of the argument is that representationalist assumptions, in competency approaches are limiting or constraining in the way they portray the experience. The intention of this paper is not an attempt to usurp existing competency approaches, but rather to complement them with a rich and overt adjustment and acknowledgement of the emotional and human dimensions of competency.

In order to construct a reply to normative representation in many competency frameworks and approaches paper proposes an enhanced role for increased narrative and social construction within them. A helpful comparison for this process is to be found within the critical perspective field of management and organisation studies (Linstead, Fulop and Lilley, 2009) The commitments of writers within this area have drawn attention to the mechanistic and rationalistic nature of writing in the management arena pointing up a lack of commentary on inter alia emotion, spirituality, gender, values and beliefs, identity, power and resistance. Knights and Willmott, (1995, 1999) have proposed this as the absence of a sense of "lived experience" in areas of that literature. They argue that organizational life and management "entails the common experience, challenges and disappointments and pleasures of being human... students and practitioners of management are, first and last, human beings." (1995:3) Commenting on many management texts, they point out that readers "are presented with an endless stream of theories, typologies, bloodless descriptions and often patronising prescriptions" (1999:2). They summarise the purpose of the 'lived experience' approach as "less concerned with the specific and the detailed 'technical' functions of management, as described in most textbooks than with the ways in which technical activities effect the lives of managers."(1999:ix) Many aspects of competency approaches and much of the writing and literature on competencies are prone to similar effects in relation to the lives of participants, employees and managers. However, Knights and Willmott are keen to emphasise that they "are not quite so arrogant as to deny [for example] the value of a good textbook in providing an introductory guide to a particular field of knowledge" (*ibid*, p.1) The present paper shares this sentiment with regard to competency frameworks and writings. However, it does underline

scope for, in a first instance, surfacing the limited “lived experience” style accounts extant in these approaches.

“Lived experience” approaches draw their inspiration from a socially constructed perspective of human interaction. This offers alternative appreciation of the emergence and patterning of competency experience. For Berger and Luckmann (1971) the objectification (i.e. representationalist) form of knowledge building is a consequence of intertwined processes of typification (classifying and “agreeing” knowledge) and subsequent habitualization (repeated usage and reinforcement) which give rise to the “externalization” and “objectification” (the rendering as fact) of human and social experience. In turn, this permits a process of consequent internalization of a created “reality” in that: “A world so regarded attains a firmness in consciousness.” (*ibid*:p.78) And, as such, everyday human experiences become seen as ‘legitimated’ (*ibid*:p.111) or ‘representations’ (Chia, 1996) rather than being “humanly produced”. (Berger and Luckmann, 1971:78) It should not be assumed that “these moments” occur in a progressive linear or strict “temporal sequence” (*ibid*: p.149) but rather through an iterative and relational manner (See also Watson and Harris 1999:18 and Chia, 1996:581).

It is thus useful to view a programme of competencies as much as a socialisation experience as a project to inculcate and record technical skills and the progressive pursuit of process and outcomes. These seemingly less tangible aspects have the power and poignancy to dictate and to dominate the process and in many cases are more likely to constitute the usual (or normative) rather than the marginal. It is through alternative frames of reference that wider and richer appreciation of competencies can be generated drawing out the social, psychological and emotional dimensions.

CONCLUSION

The argument in this paper has been able to provide a historical contextualisation of competencies. As indicated, they have been a number of comments in the literature in this regard. However, there is a case and scope to provide a more concerted and rich appreciation of the socio-cultural and socio-economic in which competencies in the United Kingdom environment have emerged.

Moreover, the discussion of competencies in their contemporary context has carried forward a modernistic and positivistic framing of the domain. This has provided guidelines and assistance to organizations in a range of ways. However, there is clearly the potential to bring to bear alternative perspectives and paradigms through a critical gaze to be able to glean a wider and richer picture of competencies and vocational training and qualifications.

In much of the commentary of competency training the full human nature of the participants is not addressed. By gathering and analysing data in relation in a way that shows individuals replete with all the human emotions and characteristics they possess there is a potent opportunity to recast competency approaches and understand them in a deeper manner.

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CHANGE READINESS: AN ALTERNATIVE CONCEPTUALIZATION AND AN EXPLORATORY INVESTIGATION

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The study's main contribution is proposing and testing an alternative conceptualization for change readiness (CR). In this conceptualization, change readiness is viewed as a multidimensional Behavior that reflects the firm's competencies to do three things in response to environmental opportunities and threats in its industry: *trigger identification*; gearing up to take action (*preparation*); and the action's *degree of novelty*. An empirical study of 217 organizations and strategic units in the U.S., Europe, and Asia is presented. It was hypothesized and supported that CR is influenced by both internal and external variables, including management orientation (entrepreneurial, centralization), environmental barriers, and technology and innovation roles in firms' business strategies. It is argued and supported that a higher degree of change readiness leads to better performance and to higher management evaluation of success in coping with environmental triggers. Theoretical discussion and managerial implications are addressed.

Keywords: business strategy; change readiness; environmental barriers management orientation

INTRODUCTION

The concept of change readiness has been largely discussed in the management literature mainly in the Organizational Behavior domain (Alas 2007; Chonko et al. 2002; Eby et al. 2000; Jones et al 2005). These studies focus on organizations' structures, learning, and personnel's (managers, employees) attitudes toward organizational changes (Alas 2007; Armenakis and Bedeian 1999; Barr et al. 1992; Newman 2000; Rajagopalan and Spreitzer 1996). Most studies have associated change readiness with flexibility, and note its importance to achieving a strategic advantage in an increasingly turbulent business environment. However, though change readiness is strongly related to business and marketing strategy (i.e., how and when to respond to marketing opportunities or threats), studies of this aspect are limited.

This paper explores the concepts of inertia and change from the aspects of business and management strategy. As such, it concentrates on the concept of change readiness (CR) and addresses the following questions: 1. What does it mean to be ready for strategic change in response to environmental triggers? 2. What distinguishes organizations that are good at it? In an attempt to answer these questions, the study's main contribution lies in proposing and testing an alternative conceptualization for CR. In this conceptualization, change readiness is viewed as a multidimensional construct that reflects the firm's competencies to do three things in response to environmental opportunities and threat in its industry: *trigger identification*; gearing up to take action (*preparation*); and the action's *degree of novelty*.

We propose that CR is influenced by a set of both internal and external variables, including management orientation (entrepreneurial, centralization), environmental barriers, the firm's resources, and the roles that technology and innovation play in the firm's business strategy. We argue that a higher degree of change readiness leads to better performance—both financial and operational—and to higher management evaluation of success in coping with environmental triggers.

In theory, the proposed CR concept draws on the resource-based perspective, which finds firms' distinguishing competencies to be important in successfully dealing with their environments (Barney 1991; Saini and Johnson 2005; Shrama and Vredenburg 1998; Timmor and Zif 2005). In addition, the CR concept draws upon the industrial organization's viewing the firm's competitive strategy to be industry-dependent (Conner 1990; Grandy and Mills 2004; Porter 1985). Lastly, it largely considers management perspectives and typologies regarding how firms handle their environments, i.e., being proactive and flexible (Dreyer and Gronhaug 2004; Mintzberg 1990; Rudd et al. 2007; Segev and Gray 1990).

The study takes the point of view of an independent organization, or a strategic business unit within a conglomerate. It begins with discussing the meaning of CR, reviewing the major perspectives of CR and their related influence on organizations' strategies. The CR concept is then presented by discussing its various dimensions and their nature in the organization behavior. The set of hypotheses is based on the factors that are expected to affect the CR facet of an organization, and the expected correlations between CR and business performance. The paper continues by presenting an empirical study of 217 organizations in the U.S., Europe, and Asia that includes methodology and findings, theoretical aspects, and managerial implications.

THE MEANING OF CHANGE READINESS

Two related concepts of organizational responsiveness have been discussed in the literature: *inertia* and *flexibility* (Aaker and Mascarenhas 1984; Hannan and Freeman 1984; Huff et al. 1992; Kelly and Amburgey 1991; Rajagopalan and Spreitzer 1996; Rudd et al. 2007; Zhang 2006). Although both concepts characterize the speed of an organization's response to environmental change, they reflect different theoretical heritages." (Ginsberg 1990 ; Huff et al. 1992)

The concept of inertia centers on structural and bureaucratic elements that organizations develop over time that tend to limit change and are hence considered "weaknesses" (Rajagopalan and Spreitzer 1996). Flexibility, on the other hand, may be defined as the extent to which new and alternative decisions are considered in strategic planning and execution, enabling positive changes and adaptations to the turbulent environment (Combe and Greenley 2004; Feigenbaum and Karnani 1991; Grewal and Tansuhai 2001; Ireland and Hitt 1999; Rudd et al. 2007). Flexibility focuses on managerial and organizational abilities to quickly respond to environmental forces, traits that are considered "strengths" (Hitt et al. 1998; Rajagopalan and Spreitzer 1996).

With the acceleration of globalization and environmental dynamism, numerous studies have discussed the relationships between flexibility, strategic changes, and organizations' performance (Dreyer and Gronhaug 2004; Ebben and Johnson 2005; Kessler and Chakrabarti 1996; Rajagopalan and Spreitzer 1996; Rudd et al. 2007; Thoumrungrole and Tansuhaj 2007).

Scholars have addressed various types of flexibility such as operational, technological-financial, manufacturing, and structural (Harris 2002; Harris and Ruefli 2000; Lei et al. 1996; Mensah and Werner 2003; Zhang 2006). Most studies have found strategic changes and flexibility to have a positive effect on firms' financial (i.e., profitability, costs) and organizational (i.e., efficiency, productivity) outcomes (Goldhar and Lei 1995; Hitt et al. 1998; Li 2000; Li et al. 2005; Rudd et al. 2007; Tan and Peng 2003).

Readiness for change has been identified with a "cognitive precursor to behaviors of either resistance or support for change efforts" (Armenakis, Harris, and Mossholder 1993; Chonko et al. 2002). Moreover, CR has been highly associated with the individual's attitude towards change as well as her perceptions, feelings, and beliefs surrounding her organization's change readiness (Alas 2007; Armenakis et al. 1999; Chonko et al. 2002; Freiberg 1988; Ogbanna and Wilkinson 2003; Rangarajan et al. 2003). In addition, it has been argued that readiness for change reflects an individual's unique interpretation (Eby et al. 2000; Spreitzer 1995; Thomas and Velthouse 1990).

Despite the extensive literature of organization flexibility, inertia, and change readiness, empirical studies have tended to use flexibility and change readiness intuitively as a clear-cut, universally understood notion (Aranda 2003; Billet and Garfinkel 2004). Hence they do not specify or measure this notion's attributes, but rather examine individuals' assessments and change's apparent effects on individuals and organizations' outcomes (Alas 2007; Jones et al. 2005; Miller et al. 1994; Santhanam et al. 2000). Somewhat of an exception is Zhang's (2006) study focusing on IS support for a few proposed parameters of strategic flexibility and firm performance. However, it did not measure these parameters directly, but rather studied its perceived affect thereon, and it also used the term *flexibility* itself in some of the parameters, i.e., "increased flexibility of business process".

Two major approaches were proposed in studying Change theories: the variance and the process. The former focuses on fixed entities with variable attributes and the later on entities that participate in events and may change over time. (Poole and Van de Van 2004; Langley 1999, Mohr 1982). Our research follows the line of the variance rather than the process approach.

In this paper, CR is perceived as strategy, oriented and is used in a more specific sense to express *the demonstrated capacity of an organization to respond effectively to important new developments in its business environment*. The proposed CR concept is therefore based on specific behavior rather than on attitude.

CR: A BUSINESS - STRATEGY CONCEPTUALIZATION

According to this conceptualization, CR is a multidimensional construct consisting of three related activities: 1. Trigger identification 2. Gearing up to take action (*preparation*) 3. Action's *degree of novelty*. These elements identify the firm's competency to cope with opportunities and threats, that evolve in its specific business environment.

Business strategy can be viewed as all activities that involve the monitoring, planning, and implementing of actions to strengthen the position of the firm relative to its competitors (Alvesson and Wilmott 1995; Grandy and Mills 2004); whereas *strategic change* refers to differences in these activities, i.e., the form, quality, and state over time of an organization's alignment with its external environment (Chonko et al. 2002; Rajagopalan and Spreitzer 1996;

Van de Ven and Poole 1995). Business and marketing scholars have commonly used Porter's (1985) SWOT (Strengths, Weaknesses, Opportunities and Threats) to analyze firms' environmental opportunities and threats and how the firm is facing them with its strengths and weaknesses (Hill and Westbrook 1997; Grandy and Mills 2004; Lin and Hsu 2006). It has been argued that amidst the globalization process, firms are more affected by *changes* in market opportunities and threats (Frenkel and Peetz 1998; Kulmala et al. 2002). Furthermore, how a firm copes with these external changes affects its competitive position and performance (Hitt et al. 1998; Thoumrungrole and Tansuhaj 2007; Zhang 2006).

Opportunities and threats are both considered external triggers; however, they are highly distinct from one another. The former is a highly favorable situation in a firm's environment, and is indication of a chance to substantially improve performance. The latter, on the other hand, is a highly unfavorable situation in a firm's environment, and indication of pending deterioration in organizational performance if some action is not taken (Hill and Westbrook 1997; Kotler 2006; Lin and Hsu 2006; Porter 1985). While it is true that in many cases a threat can be viewed as an opportunity and vice versa, most organizations tend to identify environmental signals either as threats or as opportunities, and the strategic literature frequently classifies outside events into threats or opportunities (Ansoff 1984; Urban 1991). Another view of triggers that call for strategic change is their origin:

- A shift in consumer demand toward or away from the organization's products / services (cultural pressure, economic shift, or other causes)
- A technological development that creates either a threat or an opportunity
- A change in governmental regulations or policies
- A major decline / increase in competitive activity
- An adverse / favorable change in financial sources

We propose that the first element in a firm's readiness to cope is *trigger identification*. Identification of an environmental trigger with a likely strategic impact on the firm is considered a key signal for change action (Chonko et al. 2002; Segev 1977; Struckman and Yammarino 2003; Tichy 1983). In dynamic environments, it is important to quickly respond to external triggers (Jack and Raturi 2002; Li et al. 2005; Zhang 2006;). It has been argued that with rapid environmental changes (i.e., technology, markets, regulations) and globalization, leadership is highly associated with pioneering, and thus requires early identification and quick decision-making in the face of external changes (Alas 2007; Golder and Tellis 1993; Kessler and Chakrabarti 1996; Mittal and Swami 2004).

An effective identification mechanism requires certain organizational and managerial properties. First is the need to properly monitor the environment and intercept signals for trigger sources. Second, this information should be processed to separate a meaningful development from random noise, the latter which is common "fallout" from a special event. There is also a need to assess expected likelihood of occurrence, impact, and timing. The third stage requires substantial attention on the part of higher management to translate the findings into a managerial conclusion that some response is necessary or desirable (Bar et al. 1992;

Gersick 1994; Huff et al. 1992; Lant and Mezias 1992; Li et al. 2005; Struckman and Yammarino 2003; Yetton et al. 1994).

The second element in the firm's readiness for a change is *gearing up to take action (preparation)*. Recognizing a need, or an opportunity, is a necessary but insufficient condition for undertaking strategic change. The second variable therefore deals with the time it takes to respond (Grimm et al. 1993; Kessler and Chakrabarti 1996; Mittal and Swami 2004; Zhang 2006). The time response variable, however, is not detached from the environment-monitoring variable: If the organization is slow in identifying an environmental threat, then the time available for preparing action might be quite short (Ansoff 1984). Response time can be assessed by two parameters: 1. Time to start; and 2. Preparation time. The first refers to the lag between the recognition of the need to change and the start of active preparation. This lag reflects the organization's readiness for taking change action, i.e., being overly occupied with current projects or crises, or finding it difficult to put aside existing activities, or organizations that tend to postpone making key decisions are likely to have a long lag prior to the start of action preparation (Leana and Barry 2000; Leonard-Barton 1992).

Preparation time can be seen as encompassing two discrete components: the time it takes for the change, and *prioritization policy*. The former is content-related, i.e., if a new technology requires an extensive adaptation process, then a long preparation time is inevitable (Alas 2007; Laar 1994; Yetton et al. 1994). The latter component reflects the organization's priority for dealing with the specific strategic changes needed.

The third element of the CR construct is the *action* of response, or more specifically, the degree to which the firm's response to the environmental triggers is *novel or innovative*. In turbulent environments, effective strategic change is highly associated with renewal of competencies, product innovations, and diversified and innovative response to external triggers (Huff et al. 1992; Ireland and Hitt 1999; Raymond and St-Pierre 2005; Rudd et al. 2007; Teece et al. 1997; Vatdarajan and Jayachandran 1999). Firms may defend their market positions with incremental and limited responses such as reducing prices or launching a "me too" product. However such activity reflects tactical flexibility, and may be less effective for the long haul, particularly for organizations looking to lead dynamic markets (Cannon and St. John 2004; Ireland and Hitt 1999; O'Regan and Ghobadian 2005; Timmor and Zif 2005).

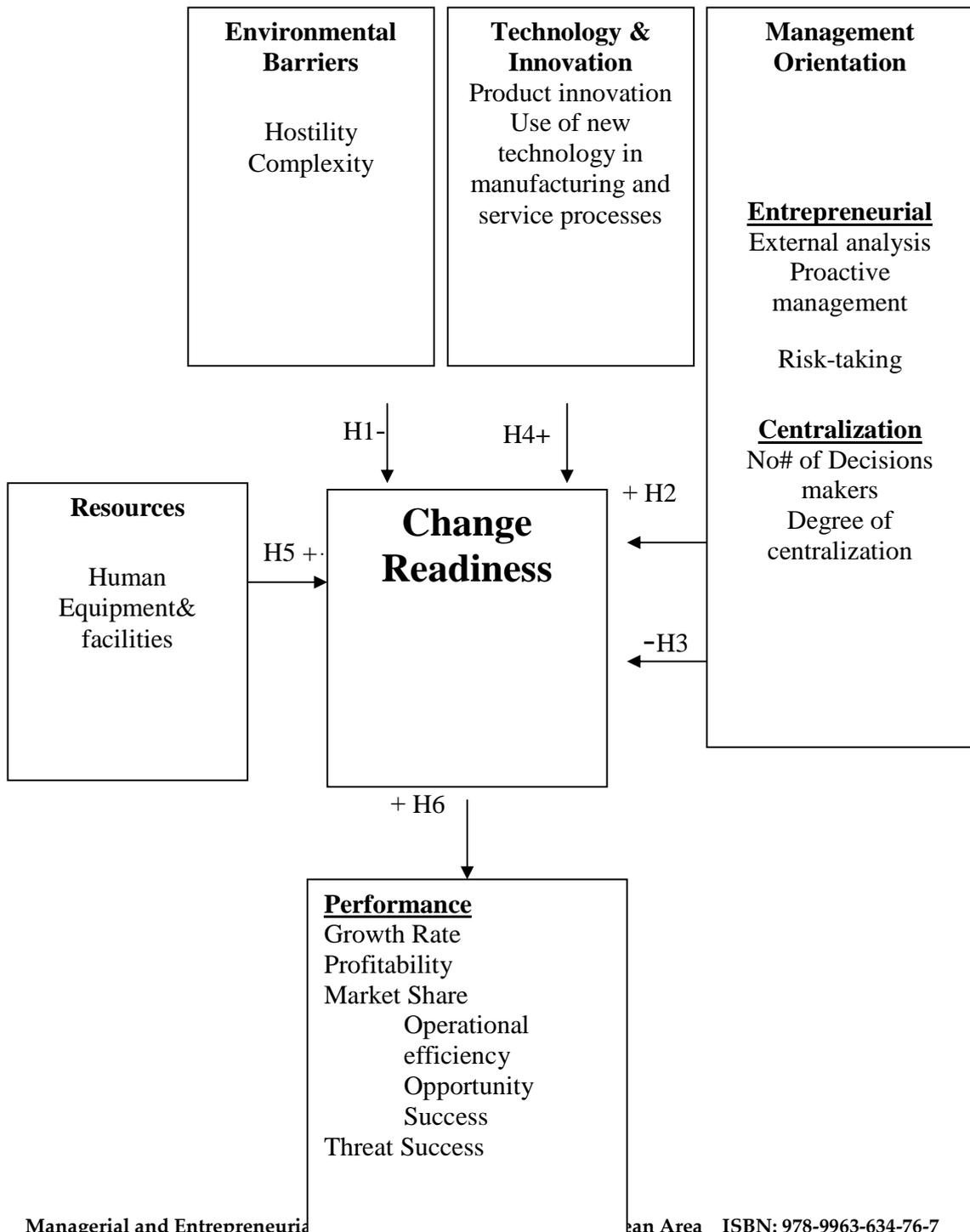
A strategy's novelty can be measured by its *evolutionary vs. revolutionary* scope. Evolutionary changes have a low degree of innovation: They do not require changes in paradigm or a major shift in managerial behavior; they have been tried before and are therefore familiar to the organization; they require limited deviation from organizational inertia. Revolutionary changes, on the other hand, are based on a new pattern of response. Such changes have to overcome natural resistance both inside and outside the organization (Boccardelli and Magnusson 2006; Hannan and Freeman 1984). A strong, committed leadership is usually needed to implement action that is completely new to the organization and its affiliates. There are of course intermediate situations, wherein the organization has been experimenting with an innovative approach on a small scale prior to its adoption on a large scale.

An organization capable of executing a response that is somewhat more innovative is assumed to have a high degree of change readiness. This of course does not mean that a

revolutionary response is always desirable (Boccardelli and Magnusson 2006; Eisenhardt and Martin 2000): A major deviation from past behavior is more likely to be needed when the outside threat or opportunity has a high potential impact on the firm and when the environment is dynamic and turbulent. In this study, respondents were asked to select strategic threats and opportunities that have potentially high impact on their firms.

What are the factors that affect a firm's CR? In this study, based on the literature review, we explored five major factors related to the environment, management orientation, use of technology, and available resources.(Poole and Van de Van 2004; Langley 1999, Mohr 1982) Figure 1 exhibits the research chart with the expected influence of the various factors on the firm's readiness for strategic change and CR on the firm's performance.

Figure 1: Research chart and hypotheses



Environmental barriers – the rapid growth of external turbulence and market dynamism have increased the importance of organizations' readiness for strategic change (Choko et al. 2002; Han et al. 1998; Ireland and Hitt 1999; Li et al. 2005; O'Regan and Ghobadian 2005; Zhang 2006). However, the environment has a dual influence on change readiness: On the one hand, as it is dynamic and changing, there is a greater need for the organization to prepare itself for strategic changes and be flexible in responding to external triggers (Alas 2007; Hitt et al. 1998; Eby et al. 2000; Li 2000; Rudd et al. 2007). On the other hand, as the environment can be hostile, complex, and unpredictable, and change readiness becomes a greater challenge and more difficult to achieve, firms' capabilities of adapting their strategies thereto are deteriorated (Kapasuwan et al. 2007; McKee et al. 1989; O'Regan and Ghobadian 2005), and the likelihood of change in corporate strategy is reduced (Kelly and Amburgey 1991; Rajagopalan and Spreitzer 1996). Under volatile circumstances, when uncertainty is high, the consequences of strategic changes are hard to predict. Therefore firms can be expected to respond with greater caution in regard to new and innovative actions. Moreover, hostile and constantly changing markets may induce tactical flexibility within a short interval—such as price-chopping or increasing supply—rather than long-term strategic changes (Cannon and St. John 2004; Evans 1991; Johnson et al. 2003). This paper views change readiness as a strategic property, and hence considers environmental hostility and complexity to be barriers to organizations' CR. We therefore hypothesize that:

H1. Environmental barriers have a negative effect on a firm's change readiness: The higher the barriers, the lower the firm's CR.

Management Orientation – An entrepreneurial mindset and decentralized strategic decisions appear to be integral parts of the organizational culture and climate that have a meaningful influence on an organization's CR (Nakahara et al. 1997; Naman and Slevin 1993; Ranjarajan et al. 2003; Zahara et al. 1999). Entrepreneurship has been reported to have a positive correlation to a firm's superior performance and innovative response to dynamic environments (Lumpkin and Dess 1996; Stopford and Baden-Fuller 1994). In addition, entrepreneurship can help a firm acquire new capabilities, enter new business ventures, and create new products ahead of its competition (Hamel and Prahalad 1991; Ranjarajan et al. 2003; Zahra 1993). Proactive management trying to shape its environment and managerial willingness to assume risk are two entrepreneurial variables (Chonko et al. 2002; Gersick 1994). They are also two dominant properties of Miles and Snow's (1978) Prospectors strategic category, whose members look for opportunities to innovate, develop, and enter new markets. Part of an entrepreneurial orientation is the commitment to scanning the environment for opportunities and for threats that might be converted into opportunities. As such, it is not surprising to find that a high score on these variables points to an organization's CR. It is important to understand, however, that CR as defined in this paper refers to responses to environmental triggers rather than the initiation of entrepreneurial action. The argument here is that an organization committed to initiating change is more likely to respond quickly and effectively to environmental triggers generated by outside causes, than is an organization characterized by a purely defensive posture.

H2. Management's entrepreneurial orientation has a positive effect on a firm's change readiness: The stronger management's entrepreneurial orientation, the greater the firm's CR.

Is centralized decision-making a help or a hindrance in responding to environmental triggers? There are occasions, particularly emergencies, when a single decision-maker or a small group

responds faster and possibly better. However, under normal conditions, a small decision-making group could, over time, be a hindrance to the acceptance of new trends and ideas. A small group has less chance of viewing external developments, and may have a tendency to lock out “disturbing” signals delivered by “non-members”. Kanter (1983, p. 281) argued that a company with a diverse group in the “dominant coalition” at the top is more likely to pick up on more external cues. Decentralized strategic planning and decision-making is associated with diversity and organizational flexibility in responding to environments (Chonko et al. 2003; Jones et al. 2005; Mintzberg 1994). In a turbulent environment, quick response to external triggers is required (Dickson et al. 2001; Ireland and Hitt 1999; Zhang 2006). In certain cases, there is a need for learning by doing and improvisation (Dickson et al. 2001; Moorman and Miner 1998; Teece et al. 1997). Learning strategies are most effectively created through a somewhat structured process guided by the top managers, yet also take place at the grassroots level (Rangarajan et al. 2003). When decision-making is centralized, i.e., only a few people located in the head office make decisions, response may take longer, hence losing both timing and pioneering advantage. In many cases, centralization is concerned with bureaucracy, or formal and rigid procedures that force inertia and hence decrease capability of change and adaptation to the environment (Rajagopalan and Spreitzer 1996; Rudd et al. 2007; Zeira and Avedisian 1989).

H3. Management centralization has a negative effect on firms’ change readiness: The greater the centralization orientation, the lower the firm’s CR.

Technology and Innovation - The importance of technology use and innovations, in both manufacturing and processing of products and services in dynamic environments, has been largely discussed in the management literature (Andersen 2005; Borch et al. 1999; Drennan and Kennedy 2003; Miller 2002; Morgan 2004; Raymond and St-Pierre 2005; Timmor and Rymon 2007; Zahra 1996). The use of technology is key in meeting the requirements of changing markets and new competitive situations (Boccardelli and Magnusson 2006; Timmor and Rymon 2007). Technology contributes to organizational dynamic capabilities (Teece et al. 1997) by facilitating product adaptation as well as new product or service offerings and variations (Karagozoglu and Lindel 1998; Lei et al. 1996; Meredith 1987).

The ability to assess and to respond to new threats and opportunities depends on the current state of knowledge and practice: If a firm maintains updated technological capability in a variety of technical fields, it enhances its ability to read customers’ preferences and activate the necessary resources to act. It has strategic flexibility and is in a strong position to respond to serious environmental shifts (Aaker and Mascarenhas 1984; Byrd 2001; Harris 2002; Rudd et al. 2007). Use of technology can also speed the firm’s response to changing environmental triggers, by better monitoring the environment, identifying new opportunities and threats, and accelerating new product developments within reduced costs (Lei et al. 1996; Raymond and St-Pierre 2005; Zahara 1996; Zhang 2006;). We therefore hypothesize:

H4. Technology and innovation have a positive effect on firms’ change readiness: The greater the use of new and innovative technologies in the product manufacturing and service processes, the greater the firm’s CR.

Resources – Change Readiness is a business capability that we suggest gives a firm a competitive advantage and enhances its performance in turbulent environments. However, in

order to develop this capability, a firm needs to invest in its resources. (Boccardelli and Magnusson 2006; Grandy and Mills 2004; Helfat and Peteraf 2003). Moreover, organizations wishing to benefit financially from operational flexibility (Aranda 2003; Jack and Raturi 2002) need to plan their resources (Greenley and Oktemgil 1998; Mensah and Werner 2003; Rudd et al. 2007; Tang and Peng 2003). These resources can be identified by two major factors: facilities and human capital. *Facilities*, reflects the availability of equipment and infrastructure such as information systems (IS), computer-aided design (CAD), and flexible manufacturing systems (FMS) (Hitt et al. 1998; Lei et al. 1996; Zhang 2006) that can contribute to better monitoring markets, greater flexibility in production at lower cost, and increasing a firm's speed in introducing new and innovative products. *Human capital* is a critical resource upon which many core competencies rest, and through which competitive advantages are exploited successfully (Ireland and Hitt 1999). Availability of new technologies is not sufficient for strategic changes; personnel need to embrace these technologies and implement them in the manufacturing process (Jones et al. 2005; Powell and Dean-Micaleff 1997; Vankatesh and Davis 2000). We therefore hypothesize:

H5. Resource availabilities have a positive effect on firms; change readiness: The greater the availability of facilities and human capital the greater the firm's CR.

Performance – Strategic change by itself does not necessarily lead to better performance (Kelly and Amburgey 1991; Rajagopalan and Spreitzer 1996; Zajac and Shortell 1989). Especially in stable markets, using a proven strategy with slight modifications can be more effective in maintaining market positioning than can rapid and / or continuous changes. However, CR in this paper relates to a firm's capability of quickly identifying and adapting its strategy to environmental triggers in turbulent environments, and to its response in the event of new and significant triggers (opportunities or threats). Hence recent studies arguing for the positive effect of flexibility and organizational readiness for changes on financial and organization outcomes (Ebben and Johnson 2005; Goldhar and Lei 1995; Hitt et al. 1998; Li 2000; Li et al. 2005; Rudd et al. 2007; Tan and Peng 2003; Thourmrungrule and Tansuhaj 2007; Zhang 2006). We therefore hypothesize:

H6. Change Readiness has a positive effect on a firm's performance: The greater the firm's CR, the better its financial and organizational outcomes.

METHODOLOGY

Research procedure and data collection

The empirical study is based on data collected from 217 organizations in 14 countries. Nearly half of the organizations are headquartered in the USA, 68% of the firms engage in some export activity, and 46% make at least half of their sales away from home. Service organizations account for 36% of the firms, and manufacturers accounts for 26%, with strong R&D.

The research respondents filled out structured questionnaires during their studies in enterprise, executive workshops, and executive MBA programs. 60% attended such programs at leading academic institutions in the USA, and 40% in their home countries (if not US-based). All respondents were key informants (i.e., in charge of or involved with their firms' strategic

decisions and implementations thereof (Thoumrungrule and Tansuhaj 2007; Timmor and Zif 2005)), and 36% are senior managers. 30% of the respondents are employed by state-owned enterprises, and 36% by publicly traded enterprises (for a detailed sample profile, see the appendix).

Self-reported data for firms' strategy tactics and performance are quite common in business and marketing research (Cavusgil and Zou 1994; Grewal and Tansuhaj 2001; Morgan and Strong 2003; Thoumrungrule and Tansuhaj 2007). Studies report a high degree of correlation between perceptual and objective measures of organizational performance as reported by questionnaires, suggesting high confidence in the latter's use (Diamantopoulos et al. 1994; Hart and Banbury 1994; Murray 2005; Rudd et al. 2007). However, it is important to point out some potential concerns regarding self-reporting questionnaires; the danger of biased responses is always present in a study of this kind: Are respondents likely to admit poor management policies? The response bias in this study seems to work against finding significant correlations. Systematic errors would have been likely to conceal rather than amplify the hypothesized behavior. If managers felt that they should not disclose their organization's lag in responding to threats and opportunities, it would have been difficult to find confirmation of key hypotheses. The respondents did not have prior knowledge of the hypotheses of the study. On the other hand, non-systematic errors of perception would have likely increased variability and made it more difficult to find statistical significance.

In two organizations, the same questionnaires were administered to a number of managers in order to explore consistency of response by various managers from the same firm. The comparison supports the assumption that variability in the content of response from the same firm is much more limited than that between managers in differing firms.

The Study Questionnaire

The questionnaire contained three parts. In part one, respondents were asked to think of two separate, recent strategic triggers: one an opportunity, and one a threat. This part had six questions: three about the organization's response and success in dealing with the specific threat, and three parallel questions about the specific opportunity. Various examples of threats and opportunities were provided.

Part two of the questionnaire was adapted with minor modifications from Segev and Gray's (1990) Business Success Expert System (BSES). This part contained questions dealing with the environment, strategy content and the strategy-crafting process, and organizations' structure, performance, age, and size. Inclusion of this set of variables made it possible to provide each respondent with a separate, confidential, printed diagnostic assessment of the strategy of her organization based on BSES. As a result, there was an incentive not only to respond, but to provide truthful answers in order to receive meaningful interpretation. The promise of quick feedback, which was kept, ensured that all responses were 100% complete. Part three contained classification questions about the respondents, their organizations, and their international activities.

Measurements

The measurements were adopted from Segev and Gray (1990) and based on recent studies whenever possible (i.e., Cadogan et al. 2002; Li et al. 2005; Rudd et al. 2007; Timmor and Zif 2005; Zhang 2006). The responses to all questions, with the exception of the respondent classification data, were rankings on a scale from 0 to 100. Most questions were based on a comparison with the industry average of the respondent's organization, i.e., a score of 50 (see appendix for specific items).

Change Readiness – The CR dimension contains three variables: 1) Speed of identification of an environmental trigger for change; 2) Response time to start preparing for implementing a change; and 3) Innovation in the nature of the response. Each variable was used twice in every questionnaire: once for measuring the firm's competencies to cope with opportunity, and once for coping with threats. Thus the CR dimension is constructed of six parameters ($\alpha = 0.75$) and reflects the calculated mean of each. Since identification of a trigger may depend on interpretation of an evolving trend, exact identification time might be vague in many cases. In this paper, the variable selected to represent the trigger identification time is expressed by a position on a continuum of early versus late identification of an environmental trigger for change. This measure was considered clearer for assessment purposes than were alternative formulations.

For statistical comparisons across companies, preparation time is a difficult variable for two reasons: first because it is content-related, and second because preparation could be regarded as an ongoing, continuing activity. A continuous measure of "early versus late start of action preparation" might better represent response time for preparing to implement a change. An early start would mean practically no lag in starting to prepare for action; while a late start would mean starting action when there was no other choice.

Management Orientation – Two factors were examined: entrepreneurship and centralization. Entrepreneurship is measured by three items ($\alpha = 0.80$): 1) Willingness to commit a high proportion of the organizational resources to risky projects; 2) Extent to which the organization is proactive in trying to shape its environment, as opposed to merely reacting to trends in the environment; and 3) Degree of tracking opportunities and threats in the environment in order to craft strategy. For measuring centralization in decision-making, two items were used: the number of personnel that make decisions in the organization, and the degree of centralization in strategic decision-making ($\alpha = 0.60$). Note that for the analysis, the number of decision-makers was reverse-scaled, i.e., the more personnel making decisions, the lower the degree of centralization. The second item was important, since it is possible that while a considerable number of personnel are involved in decision-making, decisions are authorized strictly at the top vs. at the lowest managerial level.

Technology and Innovation – Three items were measured: 1) Extent of use of new technology in manufacturing; 2) Product innovation, i.e., number and novelty of new products introduced; and 3) Extent of use of various technologies in the service process ($\alpha = 0.74$). The first item reflects the organization's *capability* of producing and launching new products, whereas the second item reflects the firm's *actual launching* of new and innovative products. The third item is important because the service sector is rapidly growing, with its role increasing in the manufacturing sector (Brady and Cronin 2002; Timmor and Rymon 2007).

Environmental Barriers – Following the literature review, we distinguished between environmental dynamism that can encourage CR, and environmental barriers that can inhibit and decrease an organization's motivation to invest in changing its strategies. Such barriers were measured by two items: the assessment of environmental hostility, and the assessment of complexity ($\alpha = 0.62$). *Hostility* relates to factors such as nationalization and aggressive competition; while complexity relates to regulation and procedures that hinder new initiatives and actions.

Resources – Two items were used to measure the organization's availability of resources: investment in production equipment and facilities, and availability of human capital ($\alpha = 0.65$). While these items differ somewhat content-wise, one—human capital—is in many cases essential to the use of the other (Jones et al. 2005; Powell and Dean-Micallef 1997; Vankatesh and Davis 2000).

Performance – To test respondent assessments of their organizations' performance, (Cavusgil and Zou 1994; Diamantopoulos et al. 1994; Hart and Banbury 1994; Murray 2005; Rudd et al. 2007), six parameters were measured. In two of them, the respondents were asked to rate the success of their organizations in dealing with the threat / opportunity on which they reported earlier in the questionnaire. Three parameters were used for financial and market performance: growth rate; profitability and market share; while the sixth parameter examined operational efficiency. For all four parameters, respondents were asked to rate their organizations' performance relative to its specific industry (Segev and Gray 1990).

Organizations' ages and sizes have been discussed in the strategic literature as affecting inertia as well as firms' flexibility and readiness for strategic changes (Autio et al. 2000; Feigenbaum and Karnani 1991; Fombrun and Ginsberg 1990; Kapasuwan et al. 2007; Kelly and Amburgey 1991; Rajagopalan and Spreitzer 1996; Zajac and Kraatz 1993). While age and size are not of main interest in this study, they were measured by asking the respondents for their evaluation of their organization's characteristics relative to their industry.

FINDINGS

We applied a logistic regression analysis to examine the differences between firms perceived to have high vs. low CR. Firms in the high CR category received a score above 50 on the CR factor, while those in the low category got a CR score ≤ 50 . This categorization was made for two reasons: 1. The scale is from 1-100; hence, the score of 50 indicates the mid level. 2 Following Segev and Gray's (1990) scaling and the questions' phrasing, the score of 50 reflects the average industry rating. Following this processing of data, the low CR category counts for 77 cases, and the high CR category accounts for 140 cases. The five factors in the research chart that we hypothesized would affect the firm's CR were used as independent variables. Table 1 presents the logistic regression analysis results.

<i>Predictor Factor</i>	<i>B Coefficient (S.E.)</i>
<i>Environmental barriers</i>	-0.027* (0.009)

<i>Technology & Innovation</i>	0.035* (0.012)
<i>Management Orientation - Entrepreneurial</i>	0.038* (0.012)
<i>Management Orientation - Centralization</i>	-0.020* (0.012)
<i>Resources</i>	0.035 (0.012)
* - $p < 0.01$	
Model Statistics	
-2 log likelihood = 210.501	
Chi square (5 d f.) 88.325 ($P < 0.01$)	
Correct classification = 77.4%	

Table 1: Logistic Regression Results Categorical Dependent Variable = Change Readiness

The model is significant and has a relatively high predictive ability (77.4% of the observations were correctly classified). Consistent with the environmental barriers factor and supporting H1: a significant negative association was found between environmental barriers and CR. Looking at the variables means and correlations (Table 1 in the appendix) it can be seen that while environmental barriers correlate with environmental dynamism, the coefficient is only 0.31 and the mean difference is significant ($p < 0.01$). This means that these two variables do not reflect the same content.

Supporting H2 and H3, management entrepreneurship and centralization were found to have a positive effect on CR. H4 was supported as well: Firms rated high in the technology and innovation factor were likewise rated high in CR. Firms with greater availability of facilities and personnel were expected to have a higher CR score. However, in this study no such significant correlations were found, hence H5 was not supported.

Table 2 shows the performance results of the firms with high and low CR respectively. The comparative analysis indicates that for all tested parameters, the firms with high CR significantly outperformed the firms with low CR, thus H6 is supported.

<i>Firms' Classification</i>	<i>High Change-Readiness</i>	<i>Low Change-Readiness</i>
<i>Performance variables</i>	N=140	N=77
<i>Growth rate *</i>	67.92 (18.80)	60.78 (22.36)
<i>Market share**</i>	62.36 (29.45)	49.39 (29.88)
<i>Profitability**</i>	58.52 (24.69)	48.96 (24.79)
<i>Operational efficiency**</i>	61.24 (18.183)	51.17 (22.07)
<i>Success of opportunity handling**</i>	69.03 (20.37)	46.97 (26.728)
<i>Success of threat handling**</i>	63.63 (20.63)	40.45 (21.82)

Table 2: Performance of Firms with High vs. Low Change Readiness Means (Std). * $p < 0.05$, ** $p < 0.01$

Table 3 presents the age and the size means of the tested firms in the high and low CR groups respectively. In this study, firms with a high CR score were found to be significantly bigger than those with low CR scores. No significant differences were found regarding firms' relative ages.

<i>Firms' Classification</i>	<i>High Change-Readiness N = 140</i> <i>Means (Std)</i>	<i>Low Change-Readiness N = 77</i> <i>Means (Std)</i>
<i>Firm relative size*</i>	60.68 (22.34)	54.68 (22.74)
<i>Firm relative age</i>	65.27 (28.18)	68.77 (26.97)

Table 3: Relative Size and Age of firms with High vs. Low Change Readiness * $p < 0.05$

DISCUSSION

The paper proposes an alternative business strategy concept of Change Readiness regarding a firm's behavioral response to environmental triggers. To explore this concept, the following tasks were attempted: 1. To explain and define the concept as a multidimensional construct. 2. To show that this concept has predictive value for a given organization's performance (Hypotheses 6) 3. To examine how CR can be predicted based on a set of organizational and environmental variables (Hypotheses 1 - 5).

"The secret of success in life is to be ready for opportunity when it comes" (Benjamin Disraeli): The idea of being ready for change, which is easy to grasp, can be operationalized for possible use.

The viability of Change Readiness as a defined and measurable concept is supported by the findings of this study. Supporting the research hypothesis, firm performance was found to be strongly associated with the multidimensional construct of three related CR activities: early identification of an environmental trigger for change; rapid response by starting preparing for implementing a change; and novelty in the content of response (for both opportunities and for threats).

In this study, firms' performance was measured by six different parameters: growth rate; profitability; market share; operational efficiency, opportunity handling; and threat handling. For all six parameters, the firms with high CR scores outperformed those with low CR scores. Previous studies have argued for the positive effect of an organization's flexibility on its

financial (profitability; growth rate) and operational outcomes (Hitt et al. 1998; Rudd et al. 2007; Thourmrungrone and Tansuhaj 2007; Zhang 2006). Flexibility, however, is commonly defined as the extent to which new and alternative decisions are considered and made (Ebben and Johnson 2005; Ireland and Hitt 1999; Rajagopalan and Spreitzer 1996; Rudd et al. 2007). In light of this study's findings, it can be argued that while novelty of action is one component of a firm's CR, early identification of environmental triggers and speed of preparation for response are integral parts of the CR construct that affect the firm's performance.

In measuring their firms' perceived performance, respondents were also asked for their assessments of their organizations' success in dealing with the environmental triggers that were presented as specific major opportunities and threats. It was found that the greater the firm's CR, the greater its success in handling these triggers. These findings, which support the research hypothesis, are not obvious, since it might be that speed and novelty of action could lead to inferior outcomes—or even failure—in handling the triggers.

This study suggests five factors that are hypothesized as affecting firms' CR, and hence aid in distinguishing between firms with high vs. low CR. Hostility and complexity were identified as environmental barriers, and have been found, as hypothesized, to have a negative effect on CR. These findings differ from those of other studies, which have viewed dynamism as an environmental motive for organizations to increase their readiness for strategic change (Choko et al. 2002; Han et al. 1998; Ireland and Hitt 1999; Li et al. 2005; O'Regan and Ghobadian 2005; Zhang 2006). One explanation for this might be related to the differing conceptualization that this study presents of CR: Most studies have approached CR as an attitude toward making strategic changes under turbulent conditions, whereas this study addresses firms' actual behavior to environmental triggers. The concept of CR implies the consideration of the required effort in making strategic changes, rendering making strategic changes under hostile and complex conditions riskier.

Another explanation might lie in the differing meanings of environmental dynamism and barriers. The former may reflect rapid changes in consumer tastes, technology, and liberalization (Chonko et al. 2002; Han, Kim, and Stivastava 1998; Harvey and Novicevic 2002); while the latter may be more expressed in regulations and state action (i.e., nationalization) and political constructs that render the business environment complex and hostile. In this study, we asked for respondent assessment to environmental dynamism as reflected by the quantity and speed of changes and uncertainty. Partial correlation was found between environmental dynamism and barrier constructs, and their mean scores were found to differ significantly.

Following the research hypotheses, the study identified key factors that correlate with CR: Entrepreneurship (risk-taking, proactive management, and constant external analysis) and Centralization (no. of decision-makers and degree of centralization) are related to management orientation in process and structure of decision-making. While CR variables are defined in terms of response to external triggers, the research findings support the notion that high change readiness implies a managerial conviction that the organization has the internal strength to shape and influence the outside, rather than merely react thereto. CR is also manifested in willingness to commit a high proportion of an organization's resources to risky projects, and systematically tracking opportunities and threats in the environment in order to craft long-term strategy. In addition, it was found that organizations that are positioned defensively to react to

external triggers are less successful in responding to those triggers than are organizations that are positioned offensively to initiate change.

The study supports the hypothesis that decentralized decision-making is associated with greater change readiness. A small top-management team is more likely to reject external signals that lie outside its comfort zone than is a wider, diversified team that is capable of raising doubt. Disturbing questions aid learning through improved interpretation of unexpected external signals. A broader managerial team might aid in promoting innovative solutions by rendering deviating from inertia an acceptable activity.

Consistent with the extensive literature and supporting this study's hypothesis, technology and innovations, both in the manufacturing / service process and the final product, were found to have a positive effect on CR. The concept of CR in this study is identified with speed and innovativeness of organizations' responses. Hence, it is not surprising that as firms integrate technology into their operations, they improve their capability of introducing new product and services within a shorter time.

In order to develop its competencies, an organization needs to invest in its resources. It has been hypothesized that firms' CR is positively affected by availability of both equipment and facilities, and human capital. Surprisingly, no significant effect on CR was found for resources. This might be explained by the relatively high correlation found between resources and technology. In addition, the findings may support the notion that entrepreneurial orientation is more critical to CR than are resources.

Finally, the two fundamental properties of age and size, considered to be indicators of organizational inertia (and therefore possibly related to CR): Age was not found to significantly differ between the high- and low-CR groups. On the other hand, the mean size of the firms with high CR scores was significantly greater than those with low CR scores. Advocates of small-size firms' strategic advantage have argued for greater flexibility and innovativeness due to less bureaucracy (Fombrun and Ginsberg 1990; Kapasuwan et al. 2007), while other scholars found no or positive effects of firms' size and age on strategic changes (Kelly and Amburgey 1991; Rajagopalan and Spreitzer 1996; Zajac and Kraatz 1993). It may be that these two parameters by themselves do not substantially affect strategic changes, and need to be mediated by other variables. Their effects however, are yet to be conclusively found.

MANAGERIAL IMPLICATIONS

In *McKinsey Quarterly* (April 2008), executives surveyed worldwide reported that, though most executives recognize the importance of global environmental trends and changes for corporate strategy, they feel that few companies address these successfully. Under globalization and increasingly turbulent environments, organizations need to prepare to make strategic changes. However, the right attitude is not enough: To be successful in responding to outside events, an organization needs certain capabilities in order to act.

This study suggests that firms' readiness for change should be examined based on three related elements: their capability to continuously scan the opportunities and threats evolving their environments; their timing; and their innovative / varied response. Our empirical research revealed that managers who ranked their organizations high on this multidimensional construct

reported significantly better performance than did those who ranked their organizations low. We therefore propose that change readiness can be improved. This study found that management's entrepreneurial orientation and decentralized decision-making contribute to CR. Technology and innovativeness, both in the production and service processes, also have positive effects on firms' CR. Environmental hostility and difficulties, on the other hand, were found to deteriorate firms' CR, yet managers can find ways to overcome these barriers.

LIMITATIONS AND FUTURE RESEARCH

There are a number of limitations to the study. For most firms, there was only one responding manager from each organization, and the threats and opportunities were self-selected. Though self-reported data for firms' strategic tactics and performance are quite common in business and marketing research, it may raise concerns regarding potential biases. The size and selection of the sample may pose limits in generalizing the study findings. Future studies should attempt to include a larger sample of organizations with more respondents from each, and to perform separate analyses by type of industry, with more specific information about environmental threats and opportunities. It would also be useful if survey data could be supported by observation of actual behavior in field studies. Yet in spite of its shortcomings, the study has explained interesting variations in response patterns and in the successful handling of environmental changes.

This paper is part of a continuing effort to study patterns of organizational response to environmental threats and opportunities. Additional planned studies include cross-cultural comparisons of response patterns based on a larger multinational sample. Further research into the distinction between responses to threats and to opportunities and an examination of the relationship between CR variables and existing typologies is also planned.

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APPENDIX - THE MEASURES**CHANGE READINESS**

Think of a relatively recent specific strategic OPPORTUNITY faced by your organization (i.e., an increase in demand, decline in competition, new course of capital, a new regulation that has a positive affect for your organization, a new potential product or service for your organization).

1. Did your organization identify this opportunity at the earliest possible time (score 100), or very late after the opportunity was quite obvious? (score 0) _____

2. Did your organization start preparing to deal with this opportunity immediately (score 100), or when it was almost too late? (score 0) _____

3. Did your organization take an incremental and familiar action in response to this opportunity (score 0), or did it take a totally innovative response that differed from past behavior? (score 100) _____

Think of a relatively recent specific strategic THREAT faced by your organization (i.e., a decrease in demand, incline of competition, an adverse change in financial resource, a new regulation that has a negative affect for your organization, a new potential product or service which competes with your own).

4. Did your organization identify this threat at the earliest possible time (score 100), or very late after the threat was quite obvious? (score 0) _____

5. Did your organization start preparing to deal with this threat immediately (score 100), or when it was almost too late? (score 0) _____

6. Did your organization take an incremental and familiar action in response to this threat (score 0), or did it take a totally innovative response that differed from past behavior? (score 100) _____

MANAGEMENT ORIENTATION**Entrepreneurial**

1. How would you rate the extent to which top management is willing to make commitments that involve a high proportion of your organization's resources to risky projects (business, marketing, financial, or political risk)? A low score indicates a highly conservative approach; 50 is average across all industries, and 100 indicates a risk-preferring approach _____

2. How would you rate your organization's ability and resource commitment to systematically track opportunities and threats in the environment in order to craft long-term strategy? An organization with a highly external environmental analysis and forecasting abilities is scored 100. The average across all industries is 50. _____

3. How would you assess the extent to which your organization is proactive in trying to shape its environment, as opposed to merely reacting to trends in the environment? A proactive

organization continually trying to shape its environment should receive a score of 100; a business that merely reacts to trends in the environment should receive a score of 0. _____

Centralization

1. How would you rate the number of main strategic players or decision-makers in your organization? An exclusively one-person show is scored 0, three to five strategic players is scored 50, a highly dispersed decision-making team (about 30 persons, or in smaller units, 30% of the staff) is scored 100. _____

2. How would you rate the degree of centralization in your organization? When decision-making authority is strictly at the top (score 100), the organization is centralized; when decisions are delegated to the lowest managerial level (score 0) the organization is decentralized. 50 is the average level of decentralization. _____

Technology & Innovation

1. How would you rate the progress of your organization in terms of the number and novelty of new techniques used in producing existing products? A score of 100 indicates the highest possible progress in your industry; 50 would be an average, and 0 is the lowest. _____

2. How would you rate the product innovations of your organization in terms of the number and novelty of new products introduced? The industry score level is 50. _____

3. How would you rate the relative number of core technologies employed in service processes? A score of 100 indicates the highest possible use of different technologies; 50 would be an average; and 0 is the lowest. _____

Environmental Barriers

1. How would you rate the extent of hostile environmental factors negative to your organization? A score of 100 indicates a completely hostile environment; a score of 0 indicates a highly benevolent environment; 50 is for a neutral one. _____

2. How would you rate the number and complexity of external elements with which your business has to contend? A score of 100 indicates the most complex environment; 50 an environment of average complexity; a score of 0 indicates a very simple environment. _____

Resources

1. How would you rate the availability of human resources in your organization? An organization with abundant resources is scored 100; an organization with depleted resources is scored 0; an average resource level is 50. _____

2. How would you rate the amount and frequency of investment in production equipment and facilities? A score of 100 is given to with the most equipment- and facility-rich organization in the industry; an organization with the least equipment and facilities ranks 0; 50 is average in the industry. _____

Performance

1. The average profitability on the return of equity of your industry is 50. How would you rate the profitability of your organization relative to your industry? _____

2. The average operational efficiency of your industry is 50. How would you rate the operational efficiency of your organization relative to the industry? _____

3. The average rate of growth of your industry is 50. How would you rate the growth rate of your organization relative to the industry? _____

4. How would you rate the relevant market share held by your organization? Monopoly or an industry leader is scored 100. Other business units' scores are their sales as a percentage of the leading competitor's sales.

5. How would you rate the success of your organization in dealing with this opportunity? A score of 100 would mean the highest rate of success; a score of 0 would represent a failure. _____

6. How would you rate the success of your organization in dealing with this threat? A score of 100 would mean the highest rate of success; a score of 0 would represent a failure. _____

Note: Questions 5 and 6 above appeared in the questionnaire after the Change Readiness section, questions 3 and 6 respectively.

Environmental Dynamism

1. How would you rate your environmental uncertainty? Complete uncertainty about the environment is 100; an average uncertainty level is 50; if there is no uncertainty (a rare situation), assign a value of 0. _____

2. How would you rate the rapidity and the amount of change in your environment? A score of 100 indicates a quick and total change in the wider environment as well as in your industry; 50 is the long-term average across all industries. _____

Firm's Characteristics

1. How would you rate the size of your organization relative to your industry? Size could be assessed by sales, assets, and personnel in the organization. An average for your industry will rate 50. _____

2. How would you rate the age of your organization relative to your industry? The oldest organization in the industry is given a score of 100; the newest 0; and the industry median is 50. _____.

SAMPLE PROFILE:

<i>Firms' ownership</i>	<i>Frequency</i>	<i>Percent</i>
<i>Government</i>	66	30.4
<i>Public</i>	79	36.4

<i>Firms' ownership</i>	<i>Frequency</i>	<i>Percent</i>
<i>Private (Domestic)</i>	56	25.8
<i>Private (Foreign)</i>	16	7.3

<i>Industry</i>	<i>Frequency</i>	<i>Percent</i>
<i>Service</i>	79	36.4
<i>Manufacturing with limited R&D</i>	61	28.1
<i>Manufacturing with high R&D</i>	56	25.8
<i>Product without manufacturing</i>	21	9.6

<i>Firms' customers</i>	<i>Frequency</i>	<i>Percent</i>
<i>Final consumer</i>	52	24
<i>Industrial or Institutional</i>	59	27.2
<i>Government bodies</i>	63	29.0
<i>Others</i>	43	19.8

<i>Export rate (of total sales)</i>	<i>Frequency</i>	<i>Percent</i>
<i>None</i>	70	32.2
<i>1-20%</i>	60	27.6
<i>21-50%</i>	50	23.0
<i>51-75%</i>	29	13.4
<i>76%+</i>	8	3.6

<i>Respondents' positions</i>	<i>Frequency</i>	<i>Percent</i>
<i>Top Manger</i>	78	36
<i>Middle Manger</i>	70	32
<i>Lower Managerial Functions</i>	69	31
<i>Missing</i>	1	

<i>Location of Headquarters</i>	<i>Frequency</i>	<i>Percent</i>
<i>United States</i>	99	45.5
<i>Developing nation</i>	81	37
<i>Developed nation</i>	37	17
<i>Missing</i>	1	

MANAGING IT OUTSOURCING RELATIONSHIP IN THE PUBLIC ADMINISTRATION

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The outsourcing business in the public administration is increasing mostly in Europe through different contracting models and governance structures, where public entities and providers set up a market relationships regulated within public administration regulation frameworks.

This paper presents a qualitative study based on a Italian Region that has outsourced its Information Systems.

This study, at a very early stage, tries to contribute to the debate on Outsourcing in the Public Administration in Italy underling the characteristics of outsourcing models and how outsourcing processes are governed.

Key words: Outsourcing in Public Administration, outsourcing governance, IT outsourcing

INTRODUCTION

Nowadays strategical change and research of flexibility seem to be obligatory objectives for public entities, due to the fact that they are conditioned by high turbulence and complexity (internal and external).

Last decade has been characterized by modernization processes from a managerial and organisational point of view (Rebora, 1999), this resulting in public entities (which are becoming more decentralised) being pushed to focus on outputs and service levels provided to end users. Public entities actually operate in a new competitive scenario which is (re)defined by deregulation and technology pervasiveness.

This change, supported by a deep acceleration due to regulations prodding, has led to a redefinition of internal trims and the adoption of new organisational models that focus on strengthening outsourcing strategies, gaining external competencies and functions, improving tools for performance evaluation and strategic control. The main objective is to maintain control capabilities on activities and processes that have been externalised to product and service providers.

The outsourcing business in the Public Administration is increasing mostly in Europe through different contracting models and governance structures, where public entities and providers set up a market relationships regulated within public administration regulation frameworks.

In Italy the first stage of outsourcing processes has been mainly about non-strategic functions or functions which are instrumental to the delivery of the standard PA activities. The main objective was cost reduction. Now the focus is moving from reducing costs to improving the performance of the organization, this resulting in the presence of strategic purposes when it comes to take decisions about outsourcing (Meneguzzo, 1990).

The main benefits for public entities can be summarized as follows:

- cost reduction and economies of scale due to better specialization of suppliers;
- engagement of continual service improvement activities;
- access to resources, knowledge and capabilities of other actors in the competitive context (suppliers, competitors, etc.);
- reduction of the level of bureaucracy and better flexibility of the whole organisation;
- focusing of investments on the resources, knowledge and skills that differentiate the organization;
- the possibility to get complex and real-time information about costs, quality and results;
- the possibility to tie service costs to the results defined in the contract;
- the possibility to develop benchmarks for public entities with the objective to get good suggestions for the future;

Outsourcing is becoming the tool to encourage and support changes in public entities by pointing them towards better and more efficient management options.

This study, at a very early stage, tries to contribute to the debate on outsourcing in the Public Administration in Italy underling how outsourcing processes are governed and if accounting and financial tools in use are able to support public entities in evaluating the effectiveness of outsourcing choices, the ongoing management, the control of outcomes and performances.

This paper presents a qualitative study based on a Italian Region that has outsourced its Information Systems.

The objective is to understand which structural and relational structures allow to reach innovation and strategic development goals, and within which limits.

IT OUTSOURCING IN THE ITALIAN PUBLIC ADMINISTRATION: CHARACTERISTICS AND MODELS

Throughout the last years the public sector has shown a great interest for some contractual agreements as sources of flexibility in order to obtain the same functioning within the public companies like the private one. Types of decentralization have been analysed particularly from both the strategic point of view and the contractual one.

At the beginning of the eighty's, particularly in the USA and in the UK, lively grows a trend of decentralization favouring first of all the privatization of the activities and services, instead of the externalization. In the case of privatization, considered as a strengthening of the private role both from the strategic and operative point of view, the public management renounces the choices of the services and the definition of the strategy.

Types of externalization *in strictu sensu*, instead, are summarized as follow (Meneguzzo, 1990):

- contracting out, when a public or a private entrepreneurs manages services and/or activities;
- contracting in, when the management of the services is given to other public institutes;

- partnership, considered as a process of cooperation between public and private sector like in the case of the joint venture.

In Italy there are many outsourcing examples in the public sector, especially within the IT services.

In 1969 the Ministry of Finance began a project of full outsourcing; but after that It decided to internalise IT systems and to create Consip SpA. The Ministry decided to maintain a control over the integration and the cooperation between systems on the one hand, and the normative dynamic and the evolution of the staff competences on the other. Consip became the main interface for all the technical problems and the new projects of the Ministry, assuring the integration of the systems.

Another example of outsourcing concerns the Ministry of Agriculture. In 1980 It gave to Auselda only a part of the information systems, and this experience developed in a full outsourcing in 1985 when it gave to Finsiel the management of all systems, in order to obtain economies of scale and integration. In fact the Ministry managed a software complexity, due to a normative framework, which quickly developed, and to an administrative system decentralized on the territory.

Both the examples show, as many other cases (ACI, Alitalia), how the choice of partnership relations as consortium or public-private venture represented and represent nowadays a prevalent strategy. The easier management of the relation, in terms of free decisional processes, becomes an important factor of choice that affects strategies. Actually the trade off works between the difficulty of the management of the relationships among the institutions, as the case of the contracting in, and the difficulty of governance of the private subjects, as the case of the contracting out, because of the incompleteness of the contracts and the lack of specific competences.

More, the difficulty to empower the skills and the inner competencies has driven to constitute private enterprises with public sharing, aiming to manage the outsourcing contracts.

The choice of these intermediate relations of collaboration between hierarchy and market, thanks to an exercise more or less direct of the governance of the relation, solves at the source a series of problems and bonds primarily tied to the responsibility on the collective systems, to the respect of the policy determined at different levels.

The public sector, moreover, prefers the choices of insourcing or contracting in order to avoid a loss of control. The risk to create a situation of almost a monopoly, with great players of the market is high. This case would increase the risks of a failure of the relation and rise of the switching costs.

In the private sector, on the contrary, the choices of internalization or adoption of intermediate relation as the joint venture are tied to the increase of the costs of transaction related to the selection of the supplier with high frequency of the use of the resources (Wildener, Selto, 1999), with high level of technological uncertainty and asset specificity (Robertson, Gatignon, 1998; Poppo, Zenger, 1998), with high risks of opportunism (Steensma, Corle, 2002). Other independent variables correlated to the outsourcing decisions include: the risk of failure negatively correlated to the probability of internalization (Steensma, Corle, 2002); the costs of

monitoring, where the difficulty of growing measurement, referred to innovative factors, is positively linked to an inner governance (Robertson, Gatignon, 1998).

The need of more flexibility and the innovative high boosts, contrary to the typical rigidities of the public employment, drive to reconsider the utility to operate through the different contractual agreements provided for the Public Administration, creating with the final supplier a market relation more daring but regulated within the public administrative services (Willcocks, Currie, 1997). According with Meneguzzo, the competitive management «represents the solution that allows to give importance to the substantial contents of the service supply»(Meneguzzo, 1990).

Nevertheless, the trend to the outsourcing processes *in strictu sensu* and the lack of experience and managerial models consolidated for the PA, open to a series of research questions :

- a. Which are the roles, the activities and the useful tools to manage the supply relation successfully?
- b. How do the ruling factors drive on the governance of the outsourcing relations?
- c. Which are the controlling measures available that can be considered as effective management tools of the outsourcing contracts?

The first problem is linked to the difficulty to detect appropriate technical and strategic skills and roles able to support the correct execution and monitoring of the contractual agreements. This scenario drives the public companies to reconsider the organizational and operative requirements in terms of process of coordination and integration between the different units, together with the needs of professional and technical retraining of people involved in the outsourcing process, in terms both of direction and execution of the contract.

The management of the decision process only represents the first stage of the outsourcing processes, which careful management guarantees their success only partially. But it is decisive to start up processes of continuous reassessment to estimate both the quantitative aspects (levels of service), and qualitative aspects (perception of the quality) of delivered services.

The crucial point becomes, so, to manage the complexity and the dynamism of the outsourcing processes through activities of codification and standardization of processes and measurement units, definition of the interfaces of communication, allocation of decision power, definition of the processes of penalties and rewards.

The second problem , linked generally to the re-definition of the limits of the public, concerns the ruling factors which reduce within the public companies the possibilities of management, typically linked to the contract, of the different outsourcing solutions.

The third problem concerns the economic and financial methods of management of the contract. These conditions assume a crucial role because they have to reconcile the need of respect of the agreed budget and the need of more flexibility linked to the introduction of new technological solutions and changes of the service request. Moreover, the traditional account systems of the public companies, focused on the cash accounting, do not allow, ex ante, to estimate the convenience of the different proposals taking care of financial expenditures, and ex post to verify and evaluate the performance of the supplier.

In general, the effectiveness of the management of the outsourcing process needs weighed strategic choices and a consequent organizational development characterized by high level of integration and a consequent coordinated development of competencies. The adoption of the outsourcing models like the contracting out is linked to the capability of the public companies to reconvert their own purchase and management structures in order to avoid the growth of the costs of the transaction contracts, because of the distortion effects of the opportunism and the power (competencies) of the supplier of the outsourcing services.

This development and change of course is not simple and quick in bureaucratic structures like those of the public sector. Often the reduction of the risk of the loss of control on the outsourcing contracts, and the removal from the real needs of the inner users, carries out through a path of inner growth and development of managerial competencies that is not trivial at all.

An exploratory case study

The empirical material on which this paper is built has been collected in an Italian Region.

Two collecting methods has been utilised. The first one concerns the analysis of archival sources. Internal official documents have been analysed and data from bids. The second is based on semi-structured interviews. Interviews have been involved individuals, both strategic decision makers and people involved in operational activities, directly involved in outsourcing processes (both IT and financial side). Roughly 10 hours of interviews were carried out by the authors. For confidentiality reasons no more information on the buyers can be provided.

The nature of the research questions made the choice of the exploratory case study method the most appropriate (Eisenhardt, 1989, Yin, 1994), both to explore and to get a deeper understanding of particular issues.

In addition to the intrinsic limitations of case study research, the study could be partially biased by the fact that we observed only customer side. As a consequence, further investigation on vendors can be useful to validate the existing findings.

Management service of the network infrastructures, hardware goods, ICT services systems used by the structures of the Region and ICT services offered by the authority itself, are the object analysed.

Actually the Region has drawn up a contract in 2007 of about 9.000.000.000 euros given to a group of companies.

The actual lead company on January 2004 won a competition which provided a contract of 5 years for the amount of 6.600.000,00 euros, amount extended to 9.600.00,00 because of a new re-modulation on June 2004. On June 2006 the Region resolved the former contract and gave again to the same company similar services for the amount of 4.800.000,00 euros until the end of December 2007.

The services in the procurement contract are:

1. institution of a on-site call centre/help desk;
2. network maintenance services, network development and security;

3. system integration, system development, system maintenance;
4. hardware maintenance and workstations maintenance;
5. monitoring, support and control of third parties contracts.

The collaboration with the external supplier is included in the strategies of the Region which has set up a developing process of the network verged to guarantee interoperable standards and software cooperation between computer systems of its own offices, distributed in the territory.

Other objective concerns the adjustment of the current structure of the network to changing needs and to the confidential nature of the information. The prospect is the migration towards the Public System Network and to guarantee, at the same time, of the continuity of the services offered and the greatest cohesion among Public Administrations in the region.

With this structure it is possible to realize a net of reliable interconnections which guarantees alternative paths among different offices.

The model adopted for the project guarantees a distributed environment in which all the authorities can interact between themselves, setting aside all the platforms used. The distributed system assures the integration and interoperable applications, safety mechanisms and the measurements of the quality of services, the access to applications from different devices.

The Region expects from the outsourcing relation first of all the raising of the levels of the services, the access to new competencies and skills, the improvement of the flexibility and support to the change. In order to gain these objectives the Region considers to maintain in house three main functions/competencies:

1. Design of solutions and definition of requirements;
2. Definition of models for semantic interoperability in service;
3. Management of the information.

DISCUSSION

In the paper major focus has been concentrated on IT supply services for which is requested a particular level of integration between user and supplier for the complexity of the object of outsourcing. The IT services under analysis, in fact, are closely bound to core processes of analyzed organization, both inner and outer (dedicated to final user).

Given the analyzed case it is clear that turning to outsourcing is the result of a deep analysis of internal organization and of its possibilities compared to needs and resources, of a study of internal processes (we lack of a specification of their cost). Administration chose to concentrate its energies on arguments that are more critical for its life and for services offered to citizens as the definition of requirements and the design of services, definition of semantics, and management of information. This is essentially done to avoid loss of internal knowledge and professional skills, necessary also to the verification of the validity of the committed service and to avoid a dangerous subjection.

The concentration of resources on the main mission that constitutes the essence of the organizational structure and the external commitment of other activities and services must

prove to be favourable, economically too, and can be accepted only if suitable selection procedures have been arranged in advance, as much as suitable contractual tools in which, as well as a detailed definition of the committed service, warranty controls for the level of the furniture and transparency on operational procedure should be forecast. Research highlighted, on the other hand, a substantial inconsistency between features of the object of the supply and tools of relationship management.

Empirical evidences derived from the explorative case show as management tools usually prompted by literature aren't always consistently applied in the observed case.

Contract and technical measures detailing it revealed themselves as the main governance tool of the relation. Nevertheless is really on its features on the capability to reflect the real features of relation that we met the biggest differences in governance systems adopted in the private system.

An approach is marked by a static management of the contract, and a regulation too restricted. This one tries to respect predefined levels of service, trying to increase sales proceeds through the management of a bigger amount of activities, and on the other hand trying to avoid penalties, often left unpaid for lack of a continuous monitoring activity. This approach limits the capability for the supplier to understand the needs of the user and to translate them in dynamic and performing services.

Management of uncertainty and technology dynamics and business processes depends on a good contract rafting, on the definition of goals and management and control processes (Willcocks, Fitzgerald, 1994), on modalities of operational modalities review, but also on the capability to stimulate *in itinere* actions and reactions of counterpart towards common goals. In complex cases, in fact, as the one analyzed, a contract as governance tool results effective only if it is posed in a dynamic shape, that is able to comprehend internally incentive tools, of recurrent review, of possibility of review and improvement of needed services during the relationship, that are controlled from time to time, considering the whole development of the relationship itself.

The case shows as in environmental internal and external uncertainty situations, as if in the case of technology, contractual forms defined first by community policy and then by national policy represent an area of vulnerability from the point of view of governance. Risk is that a growing dissatisfaction of users both external and internal and a difference between the expectations on the quality of service and the quality of service actually given, a lack of incentives to improvement, a bureaucratic selection of needs, the missed updating of available services. To the law, in effect, is given the task to identify the most suitable solution for the management of services, and to give coherent and effective solutions in situations of certainty (Pini, 2005).

Again, accounting systems based on cash accounting impact negatively on outsourcing governance. They do not allow, *ex ante*, to evaluate the value of different proposals, focusing mostly on cash outflows, *ex post* to control and evaluate provider performances.

Putting the accent on the relevance of financial aspect of management disregarding the economic one (accrual accounting) doesn't create the basis for accountability, that is making

responsible on performance, of the right use of the resources, on the decisions to activate commercial partnerships, on the financial supportability of the desired services, to plan future investments (Tommasetti, 2008). It would be appropriate to use an analytical distribution of cost, that should consider the various stages in which is divided the life of the information system. A structure of cost isn't present, in fact, articulated in supplied services or in activities, clearly linked to the use of a well determined factor. It seems impossible to follow a recovery of efficiency for activities that present a contained added value and a recovery of flexibility in the management of costs. The single entries that make the cost of the service managed internally by administration should be related to the effects of externalization on the same costs in terms of savings, for economic convenience; evaluations at the same time should be done in political terms and considering the strategic direction of the administration, the features of product as well of the service, constraints tied to the resources allocation.

CONCLUSIONS

Outsourcing isn't simply a commitment to an external supplier on activity phases of service delivery, but expresses a logic of redesigning and it's supposed to focus on the main mission, defending some of the main activities e focusing the attention on the needs that tries to fulfill.

It's necessary to keep a power of continuous control on externalized processes, on quality of service, on planning, on development of services. It would be appropriate for public authorities to adopt control tools able to affect the behavior of outsourcer as budget, report, rules and procedures, dynamic contracts, relational trust.

As for the relational aspects, administrations show an interest limited to management of relations of endowment as a kind of partnership. It's an inheritance of a vision strongly tied to bureaucratic formalisms. Governance of social relations informally developed seems to determine success of outsourcing processes and of capability of innovation of organizations.

Lack of recognition and management of these informal relations tends to under estimate the role of knowledge. A poor sharing of knowledge and information in the supply chain, could produce cost benefits for users and supplier in the short period. Risks of losing long time benefits deriving by the tight collaboration, nevertheless, are high.

These considerations induce to deepen the explorative analysis of the relations between user and supplier, widening it also to the cases that weren't studied in this paper, to build a complete outline of the current management practices. In particular, starting from the limitations of the research considered, next steps will be in the direction to widen the surveying on the field.

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THE ECONOMIC EFFICIENCY OF THE INNOVATION SYSTEM IN THE WOOD AND FURNITURE ENTERPRISES BRANCH IN THE REGION OF THESSALY – GREECE

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In the present study, which focuses to the branches of wood and furniture enterprises in the Region of Thessaly, there is an attempt to register the main problems of the enterprises, the best practice applied concerning their operation and the analysis of the economic dimension and efficiency of their innovative activity as well. For the production of new, innovative and quality products, it is necessary to have relative high expenditures for the procurement of modern technological equipment, as long with other production factors, which have to be incorporated into the total production cost. The enterprises of the branch of wood and furniture, seems that they don't produce innovation by their own and they come behind to the extraversion that they have to show for successful innovations they may apply. The efficiency of the enterprises innovation system is judged as adequate, as long as the majority of the firms are using in a satisfactory way the inputs of innovation. However, there are significant margins of improvement, mainly to the sales of products that are a result of some kind of innovative action of the enterprises, along with issues dealing with training of the staff, dissemination activities of innovation and development and application of R&D. The alteration of efficiency shows fluctuations pointing the absence of a clearly specified strategy of the enterprises of the branch in issues dealing with adequate use of production factors of innovative activity and the expenditures that are made for that reason. Finally, there are enterprises that come significant behind related to other firms of the branch and they have to try much harder in order to improve their efficiency and to decrease their expenditures to achieve the best efficiency of their business activity.

Purpose - The study provides important implications for managers and researchers who explore the efficiency among innovation inputs and outputs along with the registration of economics of innovation variables in company performance.

Design / methodology/ approach - A 2005 - 2007 empirical study registers economics of innovation of 38 wood and furniture enterprises in the region of Thessaly - Greece. The data collection methodology was based to the guidelines of the Oslo manual. The data analysis techniques are descriptive statistics, frequencies and correlation, using the SPSS package.

Based upon the Data Envelopment Analysis technique, a benchmarking analysis of 17 decision making units was applied measuring simultaneously the efficiency of innovation's system of the branch in the region.

Findings - Wood and furniture enterprises in the region adopt and improve already existing methods of production and products distribution. The proper attention towards the direction of developing and producing of new products and methods of products distribution should be given.

Significant efforts still have to be made for importing innovation in the production process. It is required a relative high cost of modern technological equipment, as long as of several production elements, for the production of new, innovative and quality products, a cost that has been embodied

into total production cost of the study's firms. As a result it is accenting the fundamental contribution of innovation in entrepreneurial activity and the meaning that step – by – step the firms of the branch are giving in innovative products and processes. Generally, increment of innovation performance incurs increment of sales. The firms themselves of wood and furniture branch, do not produce innovation by their own and they clearly come behind concerning to the extraversion that have to show for whichever successful innovations they apply.

The efficiency of the enterprises innovation system is evaluated as adequate while the majority of the firms are using in a satisfactory way innovation's inputs and outputs. However, there are significant improvement margins. The variation of efficiency shows fluctuations accenting the absence of a clearly stated strategy of the branch concerning issues of effective use of innovation factors and of the expenditures that are made for that specific reason.

Practical Implications - Industries, struggle to strength their competitive position in the new globalized markets, using innovation activities as their strategic ally for producing products and services of added value. The study provides useful information and data concerning the financial aspect of innovative activity and quantifies this activity in the wood and furniture branch. Furthermore, proves that, the use of innovation inputs and outputs is efficient and benchmarking analysis provides margins for business operation improvements in the branch.

Originality / value - This was the first study focused to the registration of financial data of innovative activity of Greek wood and furniture enterprises. This study expands previous similar studies, using more detailed innovation inputs and outputs and can be used as a guide to the decision makers and to the enterprises, for conducted similar benchmarking studies, offering more insight on the effects and improvements of innovative activity.

Keywords: innovation, economics of innovation, Data Envelopment Analysis, efficiency, wood and furniture enterprises

INTRODUCTION

Although it is difficult to isolate the nature, the sources and the results of innovation, there is a congruency of opinions concerning to the elements that constitute innovation (Gordon and McCann 2005). Innovation is related, beside to the technological evolution, with an expanded system of procedures for knowledge management (Komninos 2001). Scientific research approaches the meaning of innovation as a system and not with the classic linear approach that constrains innovation in specific frameworks and procedures. Enterprises do not innovate by their own but they are in continuous reaction with the rest members of the system, which along with the relations that are developing among them, determine innovative action of enterprises (Komninos et al 2001, Feinson et al. 2002). Meanings and practises, such as the adoption of new technologies and the reduction of total production cost, seem inadequate for the survival of the enterprises, which have to aim in reinvestment of information and applications of benchmarking (Papadopoulos 2005, Karagkouni 2006, Karagkouni and Papadopoulos 2006). Focusing to the branch of wood and furniture enterprises in this study, through the application of specially constructed questionnaires for the study and delineation of the existing innovation system of the branch, it is attempted a registration of enterprises problems, the approach of best practice concerning their operation and the analysis of economic dimension and efficiency of innovative action of these enterprises.

LITERATURE REVIEW

Innovation Systems

Innovation in general, but also business innovation more specifically, constitutes a non linear meaning according to the existing scientific perception and it is examined as a system. It constitutes a complex, interactive system where science, technology and society are interacting in such way that it is often difficult to discriminate the causes from the results of this system's operation (Smits 2002). As till today the linear approach of innovation was focusing to the capability of the enterprises for producing innovative activities, the approach of innovation system sets as a main role, the demand of innovation from the consumers and generally from the final recipients and users of it (Edquist and Hommen 1999, Oudshoorn and Pinch 2003). The significance of dealing innovation as a system can be easily understood if we consider that enterprises are not producing innovation by their own but always through complex relations of reciprocity and feedback (Komninos et al. 2001), specified by the elements of the system and by the relations that are developing among them (Edquist 1997, Edquist and Hommen 1999). The key of success in an innovation system is the way that the above mentioned organizations and enterprises are interacting in such a network (Pittaway et al. 2004) as long as other factors of the system (Klein Woolthuis et al. 2005).

The examination of National Innovation Systems embodies three levels of analysis (Parastakos 2003):

The *macro level* in which economy is comprehensible as a sum of acting and reacting mechanisms that involve enterprises, universities and public and private research organizations along with intermediate supporting organizations. In this level it is with a quite importance the knowledge flows inside the system.

The *mid level* examines the interrelations between enterprises with common characteristics. This is about the meaning of enterprises networks (*clusters*) which deal with alike or interconnected activities, or geographical proximity, or both.

The *micro level*, which is focusing to the individual interior characteristics and capabilities of the firm that are positively related to it's ability to innovate.

The present study is dealing with the analysis of the efficiency of the innovation system in the branch of wood and furniture enterprises in the region of Thessaly, focusing to economic efficiency of this system in mid and micro level.

Measuring efficiency in wood and furniture branch with the use of D.E.A.

Recent approaches concerning the measurement of business performance in innovation have a multidimensional character (Danneels and Kleinschmidt, 2001) without neglecting the fact that, technological evolution plays one of the most fundamental roles in the way that business innovative action is developing (Green et al. 1995, Talke 2007). Fenkel et al. (2000) mention that, «*quantification, evaluation and benchmarking of business innovation is a complex procedure for them, having simultaneously a fundamental role and meaning for academic research*». In this point it has to

be highlighted the fact that, measurement of business innovation must not be confused with the measurement of products performance in the market. The first one constitutes a fundamental criterion for the second one (Richardson and Gordon 1980, Sink 1983).

The first application of *Data Envelopment Analysis (DEA)* in the sector of forest industries was made by Rhodes (1986). However, studies for measuring efficiency in the specific branch are still limited. Most of them are focusing to the measurement of economic efficiency of the specific enterprises as long as to the efficiency of forest holdings management (Yin 1998, 1999 and 2000). Fotiou (1997) estimated the efficiency of Greek sawmills using a DEA model with two variables for inputs and one variable for outputs. Respectively, Nyrud and Bergseng (2002) have applied the same methodology for measuring productivity of approximately 200 sawmills in Norway. Similar studies have been published by Carter and Siry (2003). Specifically, considering DEA application for measuring innovation efficiency of wood enterprises, Diaz – Balteiro et al. (2006) are using only two variables for inputs and two for outputs of innovation respectively, considering total expenditures for R&D and number innovation collaborations (inputs) and number of innovative products and processes (outputs).

MATERIALS AND METHODS

The methodology that has been followed in this study, considering registration of innovation of wood and furniture enterprises in the region of Thessaly, is focusing to economic dimension of their innovative activity through the registration of the expenditures that enterprises have made related to procedures of *Technological Innovation of Products and Processes (T.I.P.P.)*. The questionnaire which has been used, was based to the internationally recognized manual of registering business innovation that O.E.C.D. has constructed in 1995, known as *OSLO manual*, of the *Frascati manuals* line. For the purposes of the present study the *subject approach* was selected which deals with the studying of innovative behavior of enterprises and the procedures of the firm as a sum.

For the construction of wood and furniture business innovation budget in the basis of subject approach, another way of approach was used in order to register innovation expenditures, known as *bottom-up approach* (O.E.C.D. 1995). Innovation outputs are dealing with incomes that came through sales of products as a result of some kind of innovative activity and they constitute an estimation of annual incomes as a percentage of annual turnovers of the enterprises, which flows from innovative products and processes, based also to published balance sheets of the enterprises of the study. The target – population of the study are the 42 firms of the branch in the region with more than 5 employees which are dealing with wood processing and furniture manufacturing. The questionnaire was addressed to all 27 enterprises for which their financial data are published in financial directories of ICAP of 2007 also. Finally, from the sum of enterprises, 38 questionnaires were gathered, namely a percentage of 90,5% of the total population of the study.

For the measurement of wood and furniture enterprises innovation system efficiency in the region of Thessaly, *Data Envelopment Analysis* was used (Charnes et al. 1978). It is a non parametric technique based to linear programming (Cooper et al. 1999). The knowledge of efficiency of a firm and as a result of a system constitutes a fundamental factor for the evaluation of the existing situation as long as for the decision making in micro and micro economic level

(Fotiou 1997). The subjects of Data Envelopment Analysis for which the efficiency is estimated, are mentioned as *Decision Making Units (D.M.U.)*. Data Envelopment Analysis considers Decision Making Unit – enterprise as a productive unit that consumes resources in the form of inputs and produces a total of outputs. In the present study, was used the occasion which the presentation of efficiency frontier is based to the hypothesis for standardized efficiency scale (*constant returns to scale*).

The philosophy of DEA relies to the estimation of efficiency according to the ratio:

Efficiency = Weighted outputs sum/weighted inputs sum

In our research, the efficiency is estimated for a sum of D.M.U's, for that reason the meaning of weights is used, since each firm uses a number of different inputs to produce several outputs. The above mentioned ratio can be presented as:

$$E_{ij} = \frac{\sum W_r Y_{rj}}{\sum V_i X_{ij}}$$

Where: W_r the weighted output r

V_i the weighted input i

Y_{ij} the output i

X_{ij} the input i

with $0 \leq E_{ij} \leq 1$

Each firm has to choose different weights of inputs-outputs of their innovative activity because of the fact that operates in a different way from the rest ones. According to this, maximum input oriented efficiency can be estimated by maximizing the above ratio, with the constraint that it can take values between 0 and 1. This leads to the ratio:

$$\max Eij_0(w, v) = \frac{\sum_{r=1}^s W_r Y_{rj_0}}{\sum_{i=1}^m V_i X_{ij_0}}$$

with $Eij \leq 1$ and $W_r, V_i \geq 0, j=1 \dots n, r=1 \dots s$ και $i=1 \dots m$.

According to this, the efficiency of wood and furniture enterprises innovative activity was estimated, through the estimation of general relative efficiency, the percentage of improvement in using inputs and outputs of innovation (*slacks*), the weighting coefficients of inputs and outputs (*weights*), *cross efficiency* estimation, *lambda* coefficients and through several indicators describing innovative activity of the study's enterprises.

RESULTS

The economic – innovative profile of the enterprises of the study

The major percentage of the study's enterprises, states as main activity furniture manufacturing (42,1%). Wood and wood products trading enterprises follow (21,1%) and with lower percentage the rest of the activities such as wooden products production, wood processing and furniture trading. The major percentage (59,5%) of the study's enterprises has a total invested capital less than 2.000.000€ and those which the invested capital is among 2 till 10 billion € follow (32,4%). Firms with invested capital that exceeds 10.000.000€ constitute the 8,1% of the sum. Similar is the distribution of percentages regarding the total value of fixed investments, showing some small differences.

Regarding annual turnover, the mean for the period 2005-2007 is in major percentage (40,5%) among 1.000.000-2.000.000€ and enterprises with annual turnover less than 1.000.000€ follow with a percentage of 32,4%. These which their annual turnover is among 2.000.000-5.000.000€ and over 10.000.000€ constitute the 24,3% and 2,7% o the sum respectively. The distribution of basic financial data for the period 2005-2007 is presented in the next Table 1.

BASIC FINANCIAL DATA	MEAN IN €
Net profits (before taxes) during 2005	189.112,76
Net profits (before taxes) during 2007	214.024,48
Salaries and social security contributions during 2005	256.475,96
Salaries and social security contributions during 2007	330.609,41
Raw materials cost during 2005	770.906,04
Raw materials cost during 2007	925.923,77

Table 1: Means of basic financial data of the enterprises for the period 2005 – 2007

To the question if they are familiar to the meaning of innovation, the major percentage (86,8%) of the businessmen, have stated that they are familiar with. Similar are the percentages concerning the use or not of innovative products and processes by the enterprises of the study, while the 76,3% stated that are users of innovative products and processes.

Concerning the ways with which the enterprises are embodying innovative action into their economic – entrepreneurial operation, it is remarked that the major percentage (51,5%), adopts and improves already existing methods of production and distribution and enterprises that innovate through the improvement of already existing products and the production of new products, follow with a percentage 39,4%. Enterprises developing new methods of production and distribution follow with relative lower percentage.

As major objectives of innovative action of the firms have been accented the following four: a) the increment of market share that is operated by the firms, b) lower production costs, c) opening of new markets abroad or towards domestic market groups – targets, d) improvement of products quality. Technologically improved products that have been commercialized by the firms during the period 2005-2007, constitute a percentage up to 16,4% of the total sales of the firms and sales of products that are new or technologically improved in relation to market under exploitation by the enterprises and commercializing of products, during the same period, that are technologically unchanged, follow with percentages 12,8% and 12,3% respectively. Technologically new products stands at the last position as a percentage of total sales up to 7,8%, while the participation of processes comes up to a percentage of 10,7%. A characteristic fact is that, the percentage of products sales that are technologically unchanged and they have been produced through unchanged production methods, constitute only a 8,3% of the total sales, a fact that indicates the effort of importing innovation in production process.

PRODUCTS SALES	PERCENTAGE % OF TOTAL SALES
1. <i>Technologically improved products which were commercialized during 2005 – 2007.</i>	16,3
2. <i>Sales of products that are new or technologically improved in relation to operation market by the enterprises</i>	12,8
3. <i>Products technologically unchanged or simply modified, that have been produced with unchanged production methods and were commercialized during 2005-2007</i>	12,3
4. <i>Sales of products that are new or technologically improved exclusively in relation to the firm</i>	10,9
5. <i>Processes technologically unchanged or simply modified that have been applied during 2005-2007</i>	10,7
6. <i>Products technologically unchanged or simply modified, that have been produced with unchanged production methods during 2005-2007</i>	8,3
7. <i>Technologically new products which were commercialized during 2005 – 2007</i>	7,8

Table 2: Percentage % of sales that are caused by innovative products or processes.

Evaluating the impact of products or processes innovation to the use of basic production factors, it is accented that innovation affects in a quite significant way the consuming of materials and the use of fixed capitals, while labor and energy consumption follow. A significant percentage (32,4%), stated that technological innovations have reduced the average total production cost during 2005-2007. Analyzing the previous question, from the enterprises that have answered positively and in relation to the reduction of average total cost, the major percentage (58,3%) showed a reduction into a range from 5-10% and a percentage of 16,7% into a range from 10-15% (Figure 1).

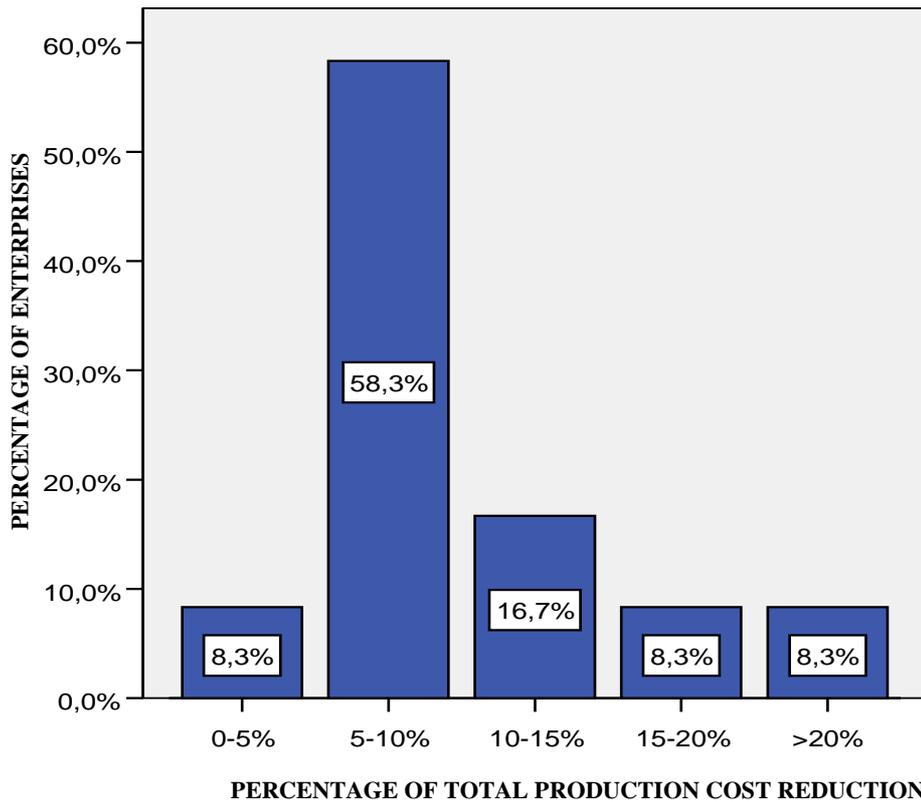


Figure 1: Percentage impact of innovation to the reduction of average total production cost of the study's enterprises.

An encouraging fact is that, the percentage of annual turnover of the firms which is related to innovative products and processes during 2005-2007, has increased significantly. Thus it is accented that, as the rate of innovation increases the percentage of sales increment shows fluctuations. Generally, it is a fact that increment of innovation rate bears sales increment also, as long as the correlation between these two variables is positive (coefficients Kendall's tau-b=0,620 and Kendall's tau-c=0,582).

In Figure 2 it is presented that the major percentage of the enterprises (31,4%), has spent in total more than 50.000€ for developing innovative activities during 2007. Enterprises with total expenditures amount less than 10.000€ follow with a percentage 22,9% and the lower percentage of enterprises (11,4%) has spent from 20.000 – 30.000€.

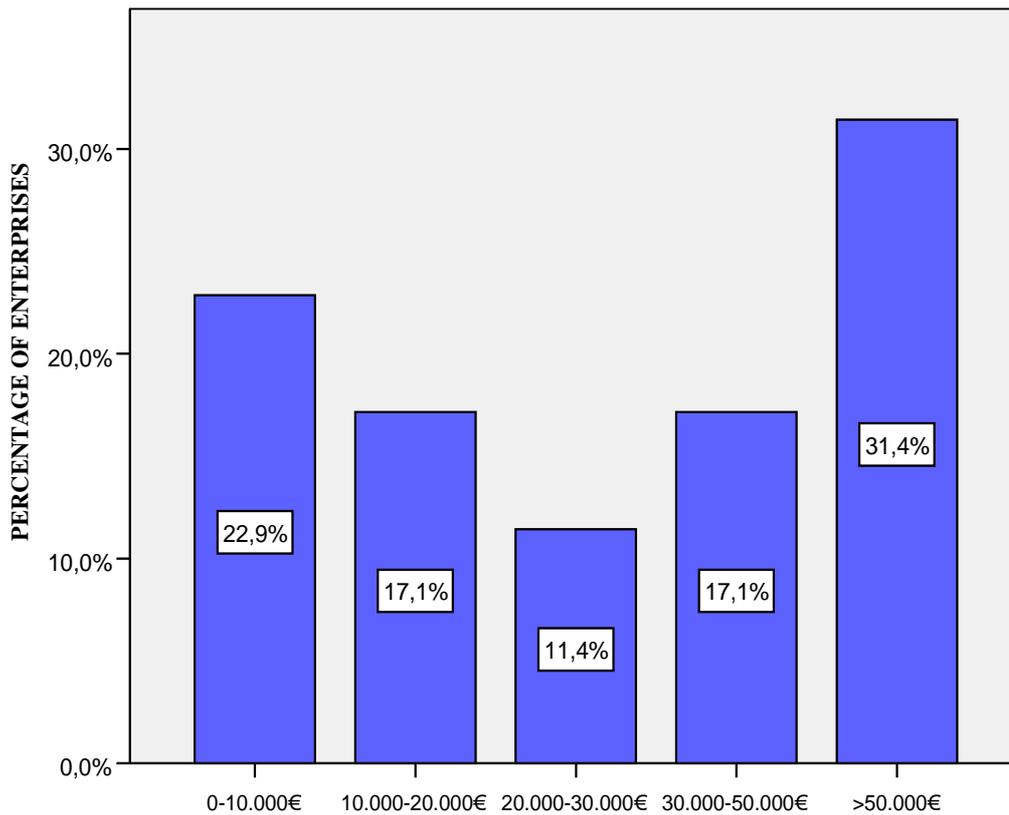


Figure 2: Innovation expenditures distribution during 2007 of the study's enterprises.

The analysis of the unified budget of the enterprises of the study, concerning innovative activities which may have been undertaken by them during the last closed financial period, follows (Table 3). The major percentage of the enterprises (85,7%) has acquired machinery and equipment and the average expenditure was approximately 56.000€. Concerning the percentage of enterprises that were involved in these specific activities, dissemination of innovation (45,7%), innovation's imports into the market (31,4%) and the acquisition of R&D (25,7%) follow, with an average amount of expenditures approximately up to 4.000€, 3.000€ and 9.500€ respectively. In the last position is the participation in procedures concerning training and acquisition of other external knowledge with a percentage of 14,3% of the enterprises and only 1.500€ of average expenditure.

From the total expenditure's amount, the major percentage (95,3%), has to do with expenditures concerning innovation flows towards the firms. The enterprises of wood and furniture branch, are not producing innovation by their own. In relation to the several positions of cost of the enterprises where these expenditure are made, the major amount concerns the acquisition of land and buildings related to innovation's development, the purchase and establishment of machinery and equipment for improving business procedures, while in the last position stand the expenditures concerning salaries such as day wages, other labor costs, financial prizes, financial bonus e.t.c

INNOVATION ACTIVITIES	INVOLVEMENT IN ACTIVITY (PERCENTAGE OF ENTERPRISES %)		ACTIVITY EXPENDITURES (€)
	YES	NO	
R&D expenditures	20,0	80,0	5.142,86
R&D acquisition expenditures	25,7	74,3	9.558,82
Machinery and equipment acquisition expenditures	85,7	14,3	55.728,57
Other external knowledge acquisition expenditures	11,4	88,6	3.228,57
Training expenditures	14,3	85,7	1.571,43
Importing innovation to the market expenditures	31,4	68,6	2.868,57
Design expenditures	17,1	82,9	3.657,14
Total innovation flows expenditures			81.482,86
Innovation dissemination activities expenditures	45,7	54,3	4.000,00
Other expenditures			0
Total innovation expenditures			85.397,14
COST POSITIONS			MEAN IN €
Day wages			156,67
Annual salaries			3.056,67
Extra financial contributions expenditures			280,00
Labor costs not involving in TIPP activities			666,67
Procurement of materials			8.466,67
Buying of procurements			766,67
Innovative products marketing			3.658,06
Supporting TIPP activities expenditures			5.645,16
Total of current innovation expenditures			22.219,35
Acquisition of land and buildings for use in TIPP			28.870,97
Acquisition of basic organs and equipment			7.000,00
Hardware and software supporting activities of TIPP			1.766,67
Establishment of machinery for improving existing products			23.140,63
Establishment of machinery for producing new products			3.533,33
Total of capital innovation expenditures			60.742,42

Table 3: Involvement in innovative activities and distribution of total innovation expenditures of the enterprises during the last financial period into positions of cost.

In the next Table 4, innovation inputs and outputs are presented, concerning the enterprises of the study for one financial year, as they were registered according to the used questionnaires (inputs) and were estimated based to the percentages of annual turnover dealing with sales of innovative products and services during 2005-2007 (outputs). In total, available data have to do with 17 from the enterprises of the study. Eight innovation inputs and seven outputs are being used. The results are being used next in order to analyze the efficiency of innovation system with the use of Data Envelopment Analysis technique. As it is presented, the major amount of inputs has to do with the acquisition of machinery and equipment for producing innovative products while from the scope of outputs sales of technologically unchanged or simply modified products that have been produced with the same methods and been commercialized within a year, constitute the majority.

S/N	INNOVATION INPUTS							
	INNER BUSINESS R&D	ACQUISITION OF R&D	ACQUISITION OF MACHINERY & EQUIPMENT	ACQUISITION OF OTHER EXTERNAL KNOWLEDGE	TRAINING	IMPORTING INNOVATION INTO MARKET	DESIGNING/OTHER PREPARATIONS	INNOVATION DISSEMINATION
1	0 €	0 €	30.000 €	0 €	0 €	5.000 €	10.000 €	0 €
2	0 €	0 €	0 €	0 €	0 €	0 €	0 €	0 €
3	0 €	0 €	0 €	0 €	0 €	10.000 €	0 €	20.000 €
4	0 €	0 €	10.000 €	0 €	0 €	0 €	0 €	0 €
5	0 €	0 €	20.000 €	0 €	0 €	0 €	0 €	5.000 €
6	0 €	0 €	50.000 €	0 €	0 €	5.000 €	0 €	10.000 €
7	0 €	0 €	40.000 €	0 €	0 €	0 €	0 €	0 €
8	0 €	0 €	50.000 €	0 €	5.000 €	10.000 €	0 €	10.000 €
9	5.000 €	10.000 €	30.000 €	0 €	5.000 €	3.000 €	0 €	5.000 €
10	0 €	10.000 €	0 €	0 €	0 €	0 €	0 €	0 €
11	100.000 €	0 €	300.000 €	0 €	0 €	0 €	0 €	30.000 €
12	0 €	0 €	15.000 €	0 €	0 €	0 €	0 €	0 €
13	0 €	0 €	23.000 €	0 €	0 €	0 €	0 €	0 €
14	0 €	0 €	0 €	0 €	0 €	12.000 €	0 €	0 €
15	10.000 €	30.000 €	42.000 €	0 €	5.000 €	0 €	0 €	10.000 €
16	0 €	60.000 €	200.000 €	0 €	0 €	0 €	0 €	0 €
17	0 €	0 €	0 €	50.000 €	0 €	0 €	0 €	0 €
TOTAL	115.000 €	110.000 €	810.000 €	50.000 €	15.000 €	45.000 €	10.000 €	90.000 €
INNOVATION OUTPUTS								
SALES OF TECH. NEW PRODUCTS COMMERCIALIZED IN 2007	SALES OF TECH. IMPROVED PRODUCTS COMMERCIALIZED IN 2007	SALES OF TECH. NEW OR IMPROVED PRODUCTS RELATED TO THE FIRM'S OPERATION MARKET	SALES OF TECH. NEW OR IMPROVED PRODUCTS RELATED EXCLUSIVELY TO THE FIRMS	SALES OF TECH. UNCHANGED OR SIMPLY MODIFIED PRODUCTS WHICH WERE PRODUCED WITH THE SAME METHODS AND COMMERCIALIZED DURING 2007	SALES OF TECH. UNCHANGED OR SIMPLY MODIFIED PRODUCTS WHICH WERE PRODUCED WITH THE SAME METHODS DURING 2007	PROCESSES TECH. UNCHANGED OR SIMPLY MODIFIED WHICH WERE APPLIED DURING 2007		
0 €	530.526 €	0 €	795.789 €	707.368 €	530.526 €	0 €		
0 €	124.292 €	0 €	0 €	0 €	0 €	0 €		
0 €	0 €	0 €	0 €	271.776 €	0 €	0 €		
0 €	0 €	0 €	0 €	0 €	298.007 €	0 €		
0 €	140.805 €	0 €	0 €	0 €	140.805 €	0 €		
0 €	0 €	0 €	0 €	0 €	0 €	0 €		
0 €	313.932 €	0 €	0 €	0 €	0 €	0 €		
0 €	150.659 €	112.994 €	0 €	75.329 €	0 €	0 €		
0 €	173.103 €	0 €	0 €	259.655 €	346.206 €	86.551 €		
118.694 €	59.347 €	296.735 €	178.041 €	593.470 €	474.776 €	356.082 €		
100.000 €	100.000 €	100.000 €	100.000 €	100.000 €	100.000 €	100.000 €		
0 €	0 €	0 €	0 €	18.465 €	0 €	0 €		
36.667 €	0 €	110.000 €	36.667 €	0 €	0 €	0 €		
0 €	0 €	0 €	71.240 €	427.441 €	0 €	71.240 €		
74.921 €	299.685 €	0 €	0 €	299.685 €	0 €	0 €		
0 €	0 €	1.650.610 €	0 €	0 €	0 €	0 €		

	8.500 €	0 €	0 €	0 €	0 €	0 €	0 €
TOTAL	338.782€	1.892.349 €	2.270.339 €	1.181.737 €	2.753.189 €	1.890.320 €	613.873 €

Table 4: Innovation inputs and outputs of the study's enterprises during 2007

The efficiency of the study's enterprises system of innovation

Wood and furniture enterprises of the study for which efficiency was estimated, are referenced as *Decision Making Units* – DMU. The Data Envelopment Analysis model that was applied concerns the delimitation of reference units according to inputs decrease of non – efficient units (*input oriented*) and the representing of efficiency frontier based to the scale of constant efficiencies (*constant returns to scale*).

In next Table 5, it is presented the estimation of the efficiency for the total of 17 enterprises which are participating into the analysis. Generally, we can say that enterprises are judged as efficient concerning the ratio inputs/outputs of innovation. Nevertheless non – efficient enterprises have to improve significantly this ratio.

	EFFICIENCY	GRAPHIC ESTIMATION	✓
DMU1	100 %	100%	✓
DMU2	100 %	100%	✓
DMU3	76.3 %	76%	
DMU4	100 %	100%	✓
DMU5	100 %	100%	✓
DMU6	0.1 %	0%	
DMU7	100 %	100%	✓
DMU8	85.6 %	86%	
DMU9	36.2 %	36%	
DMU10	100 %	100%	✓
DMU11	100 %	100%	✓
DMU12	100 %	100%	✓
DMU13	100 %	100%	✓
DMU14	100 %	100%	✓
DMU15	17.7 %	18%	
DMU16	60.3 %	60%	
DMU17	100 %	100%	✓

Table 5: Estimation of the wood and furniture enterprises efficiency according to inputs and outputs off innovative action.

Using the results of Table 5, it is estimated that the average efficiency of the sum of the study's enterprises reaches approximately a percentage of 81%, which can be considered as a quite adequate percentage of using innovation inputs in relation to the produced outputs.

In the following tables (Tables 6 – 9), the above mentioned estimation is more deeply analyzed.

In Table 6, it is presented the margin for improving the use of the inputs and outputs of innovation by the firms of the branch, as a percentage that expresses the margin of usage improvement of the mentioned variables by the non – efficient enterprises in relation to the efficient ones. As it is presented, these margins are wider concerning outputs of innovation in relation to inputs. Specifically, the margins are wider for the sales of products that are unchanged or simply modified and were commercialized during the last three years and for the sales of technologically improved products which were also commercialized during the same period. Of course this has to do with non – efficient enterprises in relation to efficient ones. However, a fact

with interest is the estimation of the margin that enterprises could improve the decrease of inputs use. This is more intense concerning expenditures for innovation dissemination, meaning expenditures related the acquisition of innovation through commercial and other channels by the enterprises and use it for the first time. In general, we could say that enterprises use the rest of the inputs quite efficiently showing small exceptions in staff training and the development and application of internal business R&D.

In Table 7, the weighted means of innovation inputs and outputs of the enterprises are presented and have to do with the way that the firms will select to weight these specific factors in order to accent their efficiency in the most extended way. In other words, Table 7 presents the best practice for the enterprises. As it is presented this weighting deals mainly with the inputs of innovation, showing several improvement alternatives in relation to the acquisition of extra-firm R&D and of other basic knowledge, with the acquisition of machinery and technological equipment to follow. However, expanding the analysis and applying cross – efficiency, aiming to the limitation of the subjectivity that is enclosed to the weighted means analysis, new values of the efficiency index are calculated (Table 8). In this way we can estimate the benchmark position of non – efficient units in relation to efficient ones, based to the results of the table's lines, as long as and the variation of efficiency based to the results of the table's columns. As it is observed this variation shows great fluctuations, confirming the above mentioned results.

Finally, in Table 9 lambda (λ) coefficients were estimated, according to which innovation's outputs of the enterprises will alter if inputs decrease by the same coefficient, in order to achieve best practice by the non – efficient firms in relation to the use of innovation's variables. This combination shows also, a significant variance as a percentage (from 1% to 524%) pointing the existing margins of improvement in the use of innovation activity between the enterprises of the study in the region.

	R&D	ACQUISITION OF R&D	MACHINERY & EQUIPMENT	OTHER EXTERNAL KNOWLEDGE	TRAINING	IMPORTING INNOVATION INTO MARKET	DESIGNING /OTHER PREPARATIONS	INNOVATION DISSEMINATION	TECH. NEW PRODUCTS COMMERCIALIZED IN 2007	TECH. IMPROVED PRODUCTS COMMERCIALIZED IN 2007	TECH. NEW OR IMPROVED PRODUCTS RELATED TO THE FIRM'S OPERATION MARKET	TECH. NEW OR IMPROVED PRODUCTS RELATED EXCLUSIVELY TO THE FIRMS	TECH. UNCHANGED OR SIMPLY MODIFIED PRODUCTS WHICH WERE PRODUCED WITH THE SAME METHODS AND COMMERCIALIZED DURING 2007	TECH. UNCHANGED OR SIMPLY MODIFIED PRODUCTS WHICH WERE PRODUCED WITH THE SAME METHODS DURING 2007	PROCESSES TECH. UNCHANGED OR SIMPLY MODIFIED WHICH WERE APPLIED DURING 2007
DMU1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DMU2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DMU3	0	0	0	0	0	0	0	15,26	0	0	0	45,29	0	0	45,3
DMU4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DMU5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DMU6	0	0	0	0	0	0	0	0,01	0	0	0,3	0,14	0	0,22	0,04
DMU7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DMU8	0	0	0	0	4,28	0	0	8,56	37,66	0	0	88,51	0	229,74	50,84
DMU9	1,81	0	0	0	1,81	0	0	1,81	42,95	41,63	107,37	70,86	0	0	48,73
DMU10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DMU11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DMU12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DMU13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DMU14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DMU15	1,78	0	0	0	0,89	0	0	1,77	0	15,63	193,23	106,45	252,25	15,77	189,19
DMU16	0	0	0	0	0	0	0	0	621,79	2147,49	0	836,54	1717,99	2148,36	1288,39
DMU17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 6: Improvement margin concerning use of innovation's inputs and outputs by the enterprises.

	R&D	ACQUISITION OF R&D	MACHINERY & EQUIPMENT	OTHER EXTERNAL KNOWLEDGE	TRAINING	IMPORTING INNOVATION INTO MARKET	DESIGNING/OTHER PREPARATIONS	INNOVATION DISSEMINATION	TECH. NEW PRODUCTS COMMERCIALIZED IN 2007	TECH. IMPROVED PRODUCTS COMMERCIALIZED IN 2007	TECH. NEW OR IMPROVED PRODUCTS RELATED TO THE FIRM'S OPERATION MARKET	TECH. NEW OR IMPROVED PRODUCTS RELATED EXCLUSIVELY TO THE FIRMS	TECH. UNCHANGED OR SIMPLY MODIFIED PRODUCTS WHICH WERE PRODUCED WITH THE SAME METHODS AND COMMERCIALIZED DURING 2007	TECH. UNCHANGED OR SIMPLY MODIFIED PRODUCTS WHICH WERE PRODUCED WITH THE SAME METHODS DURING 2007	PROCESSES TECH. UNCHANGED OR SIMPLY MODIFIED WHICH WERE APPLIED DURING 2007
DMU1	0	0,059	0,001	0,117	0	0,028	0,083	0	0	0	0	0,001	0	0,001	0
DMU2	0	0,477	0,063	10	0	0	0,237	0	0	0,008	0	0	0	0	0
DMU3	0	0,167	0,003	0	0	0,1	0,138	0	0	0	0	0	0	0,003	0
DMU4	0	0,159	0,1	0	0	0	0	0	0	0	0	0	0,003	0	0
DMU5	0	0,402	0,05	6,742	0	0	0,227	0	0	0,005	0	0	0,002	0	0
DMU6	0	0,149	0,02	0,002	0	0	0	0	0,013	0	0	0	0	0	0
DMU7	0	0,189	0,025	3,959	0	0	0,094	0	0	0,003	0	0	0	0	0
DMU8	0	0,275	0,02	3,167	0	0	0,075	0	0	0,003	0,004	0	0	0	0
DMU9	0	0,081	0,002	0	0	0,047	0,068	0	0	0	0	0	0	0,001	0
DMU10	0,002	0,1	0	0	0	0,017	0	0	0	0	0	0	0	0	0,003
DMU11	0	0,306	0,003	0	0	0,047	0	0	0,002	0	0	0	0	0	0,008
DMU12	0	3,215	0,067	0	0	1,929	2,666	0	0	0	0	0	0	0,054	0
DMU13	0	0,324	0,043	0,005	0	0	0	0	0,027	0	0	0	0	0	0
DMU14	0	0,157	0,003	0	0	0,083	0,115	0	0	0	0,001	0	0	0,002	0
DMU15	0	0,028	0,004	0	0	0	0	0	0,002	0	0	0	0	0	0
DMU16	0	0,011	0,002	0	0	0	0	0	0	0	0	0	0	0	0
DMU17	0	1,396	0,188	0,02	0	0	0	0	0,118	0	0	0	0	0	0

Table 7: Weights of innovation inputs and outputs of the study's enterprises.

	Efficiency	DMU1	DMU2	DMU3	DMU4	DMU5	DMU6	DMU7	DMU8	DMU9	DMU10	DMU11	DMU12	DMU13	DMU14	DMU15	DMU16	DMU17
DMU1	100	100	100	67,599	100	100	0	85,142	20,589	30,079	100	52,722	100	100	100	13,364	0,002	0,001
DMU2	100	100	100	Infinity	0	89,704	0	100	38,393	20,883	100	4,247	0	0	Infinity	14,203	0	0
DMU3	76,299	100	0	76,299	0	0	0	0	18,032	35,206	100	27,078	100	0	100	16,35	0,003	100
DMU4	100	59,342	-Infinity	-Infinity	100	23,624	0	0	0	25,293	100	1,119	0	0	-Infinity	0	0	-Infinity
DMU5	100	100	100	-Infinity	100	100	0	85,142	32,688	27,554	100	4,735	0	0	-Infinity	11,49	0	0
DMU6	0,125	0	0	Infinity	0	0	0,125	0	0	0	100	20,909	0	100	Infinity	17,71	0	100
DMU7	100	100	100	-Infinity	0	89,704	0	100	38,393	20,883	100	4,247	0	0	-Infinity	14,203	0	0
DMU8	8,645	100	100	-Infinity	0	89,704	0	100	85,645	13,155	100	11,217	0	100	-Infinity	8,392	33,639	0
DMU9	36,183	100	0	76,299	100	23,624	0	0	18,032	36,183	100	28,197	100	0	100	15,842	0,003	100
DMU10	100	100	100	0	100	23,642	0	0,02	0	22,448	100	100	0	100	100	0	0,005	100
DMU11	100	0	0	0	0	0	0,052	0	0	20,71	100	100	0	100	100	1,678	0,004	100
DMU12	100	100	0	76,299	0	0	0	0	18,032	35,206	100	27,078	100	0	100	16,35	0,003	100
DMU13	100	0	0	Infinity	0	0	0,125	0	0	0	100	20,909	0	100	Infinity	17,71	0	100
DMU14	100	100	0	76,299	0	0	0	0	24,994	31,902	100	34,048	100	100	100	14,533	9,959	100
DMU15	17,71	0	0	-Infinity	0	0	0,125	0	0	0	100	20,909	0	100	-Infinity	17,71	0	100
DMU16	60,309	0	NaN	NaN	0	0	0	0	47,252	0	100	6,97	0	100	NaN	0	60,309	NaN
DMU17	100	0	0	Infinity	0	0	0,125	0	0	0	100	20,909	0	100	Infinity	17,71	0	100

Table 8: Cross efficiency of the study's enterprises.

	DMU1	DMU2	DMU3	DMU4	DMU5	DMU6	DMU7	DMU8	DMU9	DMU10	DMU11	DMU12	DMU13	DMU14	DMU15	DMU16	DMU17
DMU1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DMU2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DMU3	0	0	0	0	0	0	0	0	0	0	0	0	0	0,636	0	0	0
DMU4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
DMU5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
DMU6	0	0	0	0	0	0	0	0	0	0	0	0	0,003	0,001	0	0	0
DMU7	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
DMU8	0	0	0	0	0	0	0,48	0	0	0	0	0	1,027	0,714	0	0	0
DMU9	0	0	0	0,585	0	0	0	0	0	0,362	0	0,333	0	0,09	0	0	0
DMU10	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
DMU11	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
DMU12	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
DMU13	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
DMU14	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
DMU15	0	0	0	0	0	0	0	0	0	0,531	0	0	0,323	0	0	0	0
DMU16	0	0	0	0	0	0	0	0	0	3,619	0	0	5,244	0	0	0	0
DMU17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Table 9 Lambda Coefficients

In order to have more specific results in relation to the efficiency of innovation, the *Efficiency Variance Coefficient* was estimated, through the estimation of the average, standard deviation and interval of cross efficiency of the reference units (Table 10, Figures 3 and 4). Based to the variance of this coefficient we can conclude about the “health” of the enterprises and the variance of their efficiency. As we can see there are significant margins of improvements, confirming the above mentioned results. At a single firm level, these that keep the efficiency variance near to 1, show a better behavior regardless the weights that has to use for the inputs and outputs of innovation.

DMU	DMU1	DMU2	DMU4	DMU5	DMU7	DMU10	DMU11	DMU12	DNU13	DMU14	DMU17
1	100	100	100	100	85,142	100	52,722	100	100	100	0,001
2	100	100	0	89,704	100	100	4,247	0	0	Infinity	0
3	100	0	0	0	0	100	27,078	100	0	100	100
4	59,342	-Infinity	100	23,624	0	100	1,119	0	0	-Infinity	-Infinity
5	100	100	100	100	85,142	100	4,735	0	0	-Infinity	0
6	0	0	0	0	0	100	20,909	0	100	Infinity	100
7	100	100	0	89,704	100	100	4,247	0	0	-Infinity	0
8	100	100	0	89,704	100	100	11,217	0	100	-Infinity	0
9	100	0	100	23,624	0	100	28,197	100	0	100	100
10	100	100	100	23,642	0,02	100	100	0	100	100	100
11	0	0	0	0	0	100	100	0	100	100	100
12	100	0	0	0	0	100	27,078	100	0	100	100
13	0	0	0	0	0	100	20,909	0	100	Infinity	100
14	100	0	0	0	0	100	34,048	100	100	100	100
15	0	0	0	0	0	100	20,909	0	100	-Infinity	100
16	0	NaN	0	0	0	100	6,97	0	100	NaN	NaN
17	0	0	0	0	0	100	20,909	0	100	Infinity	100
AVERAGE	89,83	66,66	33,33	63,23	61,71	100	28,01	66,66	33,33	100	33,33
INTERVAL	100	100	0	89,70	85,14	100	27,08	100	0	100	0,001
STD. DEVIATION	17,60	47,14	47,14	44,91	44,058	0	19,80	47,14	47,14	0	47,14
VARIANCE COEFFICIENT	0,19	0,70	1,41	0,71	0,71	0	0,71	0,71	1,41	0	1,41

Table 10: Indicators of Innovation Efficiency Variance of the study's enterprises.

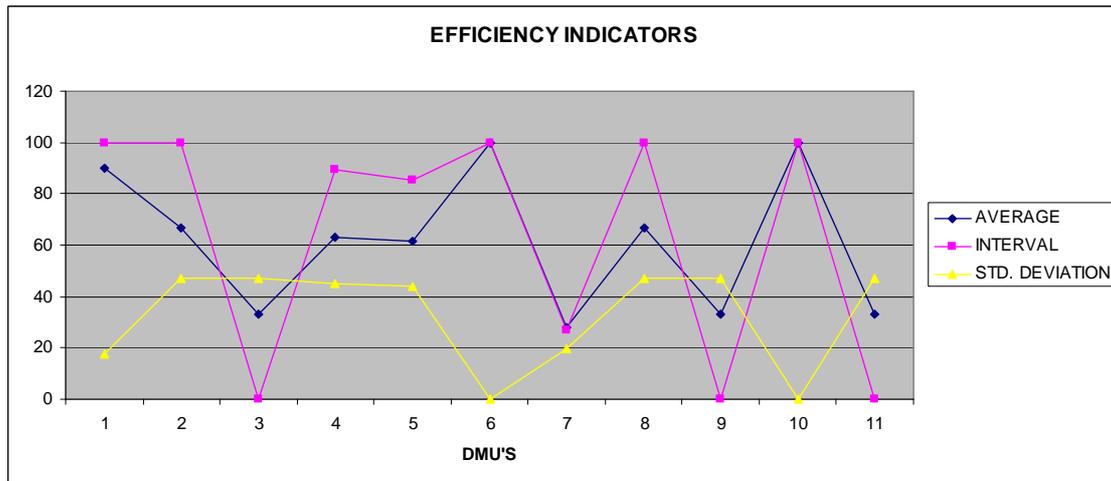


Figure 3: Indicators of Efficiency Variance of the study's enterprises.

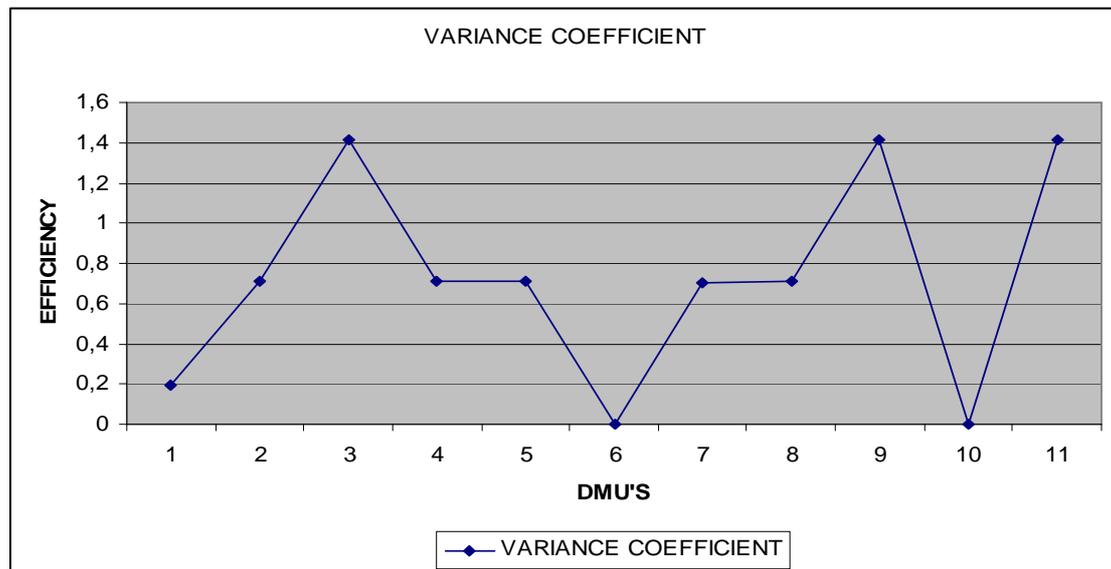


Figure 4: Efficiency Variance Coefficient of the study's enterprises.

CONCLUSIONS

The major percentage of the branch's enterprises adopts and improves already existing methods of production and products distribution while the enterprises which innovate through the improvement of already existing products and the production of new products, follow. Relative fewer is the number of the firms which develop new methods of production and products distribution. For that reason, it should be given the proper attention towards the direction of developing and producing of new products and methods of products distribution.

The major percentage of innovative products sales of the branch's enterprises comes from sales of products which are technologically improved and embody new methods of production and distribution, a fact that accents the effort for importing innovation in the production process. It is required a relative high cost of modern technological equipment, as long as of several production elements, for the production of new, innovative and

quality products, a cost that has been embodied into total production cost. The positive results of applying innovation require a reasonable time in order to be represented to the financial data of production process.

It is quite encouraging the fact that the amount of annual turnover of the enterprises which comes from innovative products and services during the period 2005 – 2007, has been significantly raised. As a result it accents the fundamental contribution of innovation in entrepreneurial activity and the meaning that step – by – step the firms of the branch are giving in innovative products and processes, in the framework of improving their competitive position in domestic and international market. It is a matter of course that generally, increment of innovation performance incurs increment of sales while the correlation between these two variables is positive. Furthermore, a significant number of enterprises don't have the capability to invest significant amounts in activities of developing and applying innovation.

From the sum of the innovation expenditures, the majority (95,3%) concerns expenditures of innovation flows towards the firms. This fact accents the existing need for acquiring know how from the enterprises of the branch and the innovation gap, which exists in relation to the rest of the business activity of several other professional branches. The firms themselves of wood and furniture branch, do not produce innovation by their own and they clearly come behind concerning to the extraversion that have to show for whichever successful innovations they apply.

The efficiency of the enterprises innovation system is evaluated as adequate while the majority of the firms are using in a satisfactory way innovation's inputs and outputs. However, there are significant improvement margins, mainly concerning sales of products which are a result of some kind of business innovative activity, along with issues of training, innovation dissemination activities and developing and applying R&D mainly through the acquisition of external R&D and technological equipment.

The variation of efficiency shows fluctuations accenting the absence of a clearly stated strategy of the branch concerning issues of effective use of innovation factors and of the expenditures that are made for that specific reason. Finally, enterprises exist which come far behind in relation to the rest of the firms of the branch and they should make intense efforts for improving the reduction of expenditures and the best possible effectiveness of their business activity.

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SUSTAINABILITY MANAGEMENT: A BUSINESS MODEL APPLIED TO PUBLICLY-OWNED ENTERPRISES IN THE WASTE SECTOR

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Purpose: Over the last few years, the laws concerning the waste sector have changed considerably. The European and national laws provide strict rules for companies so as to protect the environment and the citizens' quality of life. At the same time Italian laws are pushing in order to open up the market in the utility sector. So, by changing the rules of game, companies need to implement monitoring performance systems in order to align the organizational units to the strategy and to control the sustainability-related issues. This paper aims at analyzing the diffusion of strategic planning tools in Italian companies. More specifically it identifies the success key factors for a sample of publicly – owned enterprises operating in the waste sector in Italy and the related key performance indicators necessary to reach the sustainability goals.

Design/Methodology/Approach: The research method is empirically based: the analysis has been conducted through interviews with managers of strategic and technical areas as well as C.F.Os in ten Italian companies, and internal documents analysis.

Findings: According to Kaplan and Norton theories (2004) and basing my findings on the companies' similarities identified, a Business Model containing the cause and effect relations necessary to implement and communicate strategic goals successfully was drawn up. In addition, a set of indicators and key actions that were tailor-made better for the sample companies were proposed. The results obtained confirmed the need of a control system based on a comprehensive framework that translates companies' strategies into a coherent set of performance drivers and measures, according to social and environmental patterns.

Research limitations/implications: The possible development of the research is oriented towards a comparison between the publicly-owned companies and the private companies operating in the waste sector, in this way it is possible to see if there is a change in the strategic goals, in the perspectives and in the success key factors analyzed in the strategic map.

Originality/value: Over the last years, the theme of sustainability has received increasing attention and many organizations have implemented environmental and social management systems in order to manage and control sustainability-related issues (Bieker 2002).

The paper contributes to integrate the existing literature on strategic map and sustainability performances. In addition the research analyzes, through a multiple case – studies, the Italian waste sector, the relations among the key variables in order to create long – term values.

Keywords: waste sector, sustainability, key success factors, performances, multiple case - studies.

Article Type: Research paper

INTRODUCTION AND PURPOSE OF THE RESEARCH

Over the last few years, the rules of law concerning the waste sector have changed. The European and Italian laws provide strict rules for companies so as to protect the environment and the citizens' quality of life. In particular, national and regional laws define the objectives regarding collection, separating and recycling of wastes that have to be respected in order to avoid heavy sanctions. Companies must therefore understand the distinctiveness of the sector and the role of the internal competitive forces in order to define a winning strategy. Porter (1996: 68) defines strategy as 'the creation of a unique and valuable position, involving a different set of activities'.

The strategic analysis of the internal aspect of organizations and the external context in which companies operate seem propedeutic to the definition of their strategies and expected results.

The companies analyzed in this paper are publicly-owned and operate in the Italian waste sector in different activities: they are involved in the urban waste collection; in the transport and delivery to disposal centres; in urban hygiene and in the management of some disposal centres.

Following the classification of Kaplan and Norton (2001), in the sample analyzed, the most common strategy is *be a good corporate citizen* which takes into consideration the existing relations with external stakeholders. It is a sustainability-oriented strategy which also considers environmental and social aspects.

However, if companies want to be aligned to the requirements stated by the rules of law, the strategy formulation is not sufficient: they need to adopt management systems which are able to guide and involve whole the organization structure working towards the long-term goals.

The strategic map could be a good management tool to deal with the demand of relevant stakeholders and to translate strategies into action. However, the traditional model theorized by Kaplan and Norton should be adapted to companies operating in the waste sector in order to include the social and environmental spheres. Therefore, the purpose of this study is to design a business model for the companies analyzed, identifying the relevant strategic goals, key success factors and a set of indicators that are tailor-made better for the waste sector taking into consideration the sustainability issue. The business model has built following the logics of strategy map (Kaplan and Norton, 2004) because, better than other strategic planning tools, it highlights the existing cause and effect relations among key success variables.

The paper starts with a conceptual background concerning the sustainability issue and how it should be integrated within management systems to implement the strategy.

The following sections include the research method, that is empirically based; the survey instruments; the characteristics of the sample analyzed and of the waste sector.

In addition, the paper contains:

- the design of the business model, according to the logics of strategic map, showing the success key factors and the cause and effect relations for the companies which operate in the waste sector;
- the proposal of financial and non financial indicators (e.g. current and future performance measures regarding the different perspectives).

THEORETICAL BACKGROUND

Sustainability management has recently experienced a resurgence of interest both in the private sector (Line et al. 2002) and in the public sector (Boyce 2000; Frost and Seamer 2002; Vagnoni 2001) this is partially in response to the present crisis of unsustainability and recent scandals caused by socially and environmentally irresponsible behavior (Hawken et al 2002).

In fact, in the last years, the theme of sustainability has received increasing attention and many organizations have implemented environmental and social management systems in order to manage and control sustainability-related issues (Bieker 2002).

The sustainability highlights the interdependence of three spheres: the economic, the social and the environmental spheres (Elkington 1997). Such an approach to sustainability management aims at simultaneous achievement of ecological, social and economic goals (Figgie et al., 2001, Schaltegger and Burrit, 2000, O' Connor, 2006).

The analysis of sustainability must also focus on the interactions and interdependencies among these three spheres and on the characterization of performance and quality in each sphere. According to O'Connor (2006), who introduces a fourth sphere, the role played by the system of regulation becomes relevant, especially in

companies operating in the waste sector, because it arbitrates the claims made by the actors of the social, economic and environmental spheres. In addition, the systems of European and national laws set strict rules for companies which offer urban waste collection, transport and disposal services. So, the increasing attention on sustainability seems to be partially influenced by the ongoing process of reform. This process is aimed at closing the current performance gap of the Italian public sector by promoting its efficiency, effectiveness and accountability (Maruccio and Steccolini 2005).

Many authors have stressed the importance of linking performance measurement to environmental strategic objectives of organizations (Dias-Sardinha and Reijnders, 2001).

For this reason it becomes more and more important to adopt management guide systems which are able to involve all the organization structure working towards the sustainability goals.

This research aims at studying how the economic, social and environmental aspects are considered and related to each other in the company's management in order to guarantee a service of high level and quality as well as being environmentally friendly and respectful of the local community's needs. The strategic map, theorized by Kaplan and Norton (2004), plays a key-role in translating strategy into action because it forces managers to identify the success key factors and their cause and effect relations. After designing the strategic map, it's helpful to trace a set of performance measures that provide the framework for a strategic measurement and management system (Kaplan and Norton, 1996). The framework, that is Balanced Scorecard, which contains the set of indicators allows making a balance between past and future, quantitative and qualitative, financial and non - financial information.

Kaplan and Norton (1996: 34) say that 'the four perspective, learning and growth, internal processes, customer and financial, should be considered as a template, not a strait jacket'. Each perspective consists of relevant strategic goals, indicators and measures to achieve them. Objectives of the learning perspective, for instance, serve as enablers for the achievement of goals of the other overarching perspectives (e.g. customer, finance).

Concerning the companies of the sample analyzed, it could be more useful to adapt the classical perspectives in order to detect strategic environmental and social objectives. The majority of the companies analyzed have a monitoring system only for economic and financial performances, but nowadays they aren't sufficient: the increasing prescriptive attention on environmental and social issues necessitates the introduction of sustainability performances of the internal process perspective (Epstein and Roy 2001). In particular, starting from the strategic map, Epstein and Wisner (2001) suggested the introduction of a new perspective and Bieker (2001) proposed the conception of a sustainability balanced scorecard.

This research analyses how sustainability goals can be expressed and communicated through a business model.

RESEARCH METHOD AND SURVEY INSTRUMENT

The aim of the paper is to gain a better understanding of management tools for companies which operate in the waste sector, through the adaption of the strategy map. The research analyzes how the four perspectives theorized by Kaplan and Norton (2004) can be adapted in order to better align the organisational units to the sustainability strategy. The identification of the operative tools needed to translate the model into practice are therefore necessary. One of the main difficulties connected to the control activities is the lack of a comprehensive set of indicators which enables companies to measure the different performances.

The set of indicators proposed in this paper aims at being an example, not an inflexible framework, which has to be adapted on the basis of the specific organizational structure and distinctive key variables.

The research has been conducted through an empirical analysis of ten exploratory case studies and the results are based on interviews with managers of strategic, financial and technical areas. In the smallest companies the interviews have been conducted also with the C.E.Os.

The choice of a multiple case-study approach is an appropriate method of empirical inquiry when organizational and managerial processes are involved.

The researcher Yin (1984: 23) defines the case-study method as 'an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used'.

At the same time the numerousness of the sample analyzed don't allow a statistical generalization. Still, the insight and relatively deep understanding can facilitate analytical generalization so that findings can be generalized to theory (Yin 1984).

The choice of the waste sector is due to the increasing prescriptive attention to the safeguard of the environment and the health of citizens. In addition, the increase in waste production brings about an environmental and social problem and companies are partially responsible. Therefore, companies must keep this phenomenon under control through the creation of partnership relations with the local community and by involving the whole organization working towards common sustainability goals.

The case studies were based on multiple sources of evidence: the internal document analysis and interviews.

The interviews were semi-structured to be kept within the main question area, at the same time the interviewees were allowed to express their own ideas and feelings. According to Yin (1984), the open-ended interviews are relevant to expand the depth of data gathering and to increase the number of sources of information.

The questions asked were on general topics such as the peculiarity of the business and other specific topics, which is the strategy orientation and the role covered by the sustainability, how is the strategic planning process organized and managed, which are the critical aspects of the process, which are the indicators constantly monitored, who are the main stakeholders, which is the role of the environment in the company's management and how is the external communication process organized.

The interviews in case studies lasted between five and seven and a half hours and also included some questions to verify the quality of the answers.

A draft of results was sent to those interviewed for their comments and to ensure that the technical details were interpreted correctly. According to Yin (1984), this ensures construct validity.

The goal of these interviews was to identify the success key factors of the companies and their cause and effect relation in order to design a common strategic map for companies operating in the sector analyzed.

The following exhibit gives some information about the characteristics of interviews, such as the length and the role covered by the interviewed within the organization .

<i>Companies</i>	<i>Interviewed</i>	<i>Timing of interviews</i>
<i>Company 1</i>	<i>Technical director; C.F.O.</i>	<i>5 hours</i>
<i>Company 2</i>	<i>C.E.O., C.F.O.</i>	<i>5 hours</i>
<i>Company 3</i>	<i>C.F.O., Technical director</i>	<i>5,30 hours</i>
<i>Company 4</i>	<i>Strategic planning staff, Technical director</i>	<i>6,30 hours</i>
<i>Company 5</i>	<i>Strategic planning staff, Technical director</i>	<i>6,30 hours</i>
<i>Company 6</i>	<i>Strategic planning staff, Technical director</i>	<i>7 hours</i>
<i>Company 7</i>	<i>Strategic planning staff, Technical director</i>	<i>7 hours</i>
<i>Company 8</i>	<i>C.E.O., Technical director</i>	<i>7,30 hours</i>
<i>Company 9</i>	<i>C.F.O., Strategic planning staff, Technical director</i>	<i>7,30 hours</i>
<i>Company 10</i>	<i>C.F.O., Strategic planning staff, Technical director</i>	<i>7,30 hours</i>

Exhibit 1: the sample analyzed: characteristics of interviews

The sample analyzed includes ten publicly – owned enterprises operating in the North –West of Italy, especially in Piedmont and Lombardy regions. From this point of view, Piedmont and Lombardy are some of the most virtuous regions in Italy regarding the waste prevention, the attention paid to environmental impacts and separated collection²³⁶.

The sample chosen is in efficient regions in order to investigate the distinctive competencies able to better investigate the drivers for successful performances.

The dimension of the companies has been considered as a discriminating factor in choosing the sample. I selected only companies which offer services to more than 35.000 citizens²³⁷.

In addition, the companies analyzed were chosen on the basis of specific characteristics: the sustainability strategic orientation, the public nature and the characteristics of services offered. These companies offer primary services regarding the collection of wastes, both recyclable and non, transport to disposal centres, and management of the same. The collection is made by collecting from bins on the road or in buildings, depending on instructions given by the municipalities, but in some areas there is a mix of the two techniques. In some neighborhoods in Turin, for example, an experimental project to collect wastes in separate containers in buildings has begun, but in the remaining part of the city collection is only done on the streets where bins for the undifferentiated and differentiated wastes are present.

The sample analyzed offers also secondary services of urban hygiene in the municipalities where they operate.

²³⁶ ANTA Ranking 2009; National observatory on wastes, year 2008.

²³⁷ The selection has been conducted analyzing information shown in the Register of environmental operators.

Eight companies out of ten have a documentation called card of services which contains some indicators, especially concerning the quality of the service constantly monitored, but only one has an elementary formalization of key performance indicators.

Therefore, the interviews conducted have revealed that companies constantly monitor the efficiency and the effectiveness of the service through a simple set of indicators, mostly financial indicators and concerning the quality of the service. In a sector such as the one analyzed, which is now opening up to liberalization, involving the whole organisation in working towards common goals becomes relevant and acquires a greater awareness at all levels in order to lay the foundations for future competitiveness. The interviews have allowed me to identify the critical success factors of the business and their cause and effect relations. In the following section of the paper I have drawn up the strategic map, according to the model of Kaplan and Norton and I have proposed a set of financial and non financial indicators for the perspectives analyzed.

Designing a strategic map is a way of providing a language in which companies can describe their strategy. After designing a strategic map, a set of key performance indicators is necessary to guarantee the alignment of the organization to a common direction (Kaplan and Norton 1996; Brusa, 2007).

For the purpose of the research, a quantitative approach might not be sufficient to acquire information concerning the implementing methodologies of the strategy; a practical insight concerning the possibilities and problems within this area is needed in qualitative terms.

THE ITALIAN WASTE SECTOR

The companies operating in the waste sector can offer one or more of the following services: the collection of undifferentiated and recyclable wastes, the transportation services to disposal centres, the management of disposal centres and services of urban hygiene (i.e. cleanness of roads and parks).

The waste production is still increasing and it is partially caused by the high-volume packaging which still exists to guarantee the respect of sanitary laws and to attract consumers through a marketing policy which uses packaging to promote goods.

The waste production per head highlights that the highest values have been reached in the regions in the centre of Italy, followed by the northern regions²³⁸.

Italian laws define percentages of recycling wastes that have to be reached by the Regions: 40% before 2007, 50% before 2009 and 60% before 2011.

The data concerning the waste separation highlight a broad gap between the north and the south of Italy: the northern regions with a 40 per cent of recycling wastes in 2007, is aligned to the Italian goals while the southern regions have reached a percentage of eleven.

In addition, Italian laws are oriented towards the liberalization of this sector. Nowadays the services linked to the management of wastes can be offered both by private companies and publicly-owned enterprises. The publicly-owned enterprises are not subjected to rules of competition. Therefore, by opening up the market, for this type of companies it becomes increasingly important to adopt managerial tools able to improve their performances and competitiveness.

FINDINGS

²³⁸ In 2007, the production of wastes per head in the regions of the centre of Italy is equal to 638 Kilos. In the Northern regions the production per head is equal to 544 Kilos while in the Southern regions is equal to 509 kilos.

The strategic map

From interviews it emerged that companies analyzed haven't formalized management tools which are able to align the organizational units to strategy. A useful framework to describe and communicate a strategic plan is represented by the strategic map which can bridge the existing gap between strategies and action plans. Therefore, it is evident how the ability to execute a strategy becomes as relevant as the same strategy (Kaplan and Norton 2000).

There are two fundamental elements that have to be considered in developing a strategic map: the framework which defines the order of the perspectives and the existing cause and effect relations which link the goals within the framework chosen.

A key factor in designing the strategic map concerns the analysis of cause and effect relations which link the key success factors. These key factors are organized within perspectives. The perspectives identified by Kaplan and Norton were: learning and growth, internal process, customer and financial. The intangible assets strongly influence the achievement of objectives by other perspectives and seem vital for the future competitiveness.

In this research, the four perspectives have been adapted to the peculiarities of the sector. In particular I have identified the following perspectives:

- Value creation for consumers (end users): contains the key success factors necessary to maximize the public utility;
- Internal processes: identify the critical internal process in which companies excel;
- Learning and growth: considers the employees' skills, the companies' communication campaigns and the investments in research and innovation;
- Economic and financial balance: considers the economic and financial goals, necessary to contain costs, reduce the financial intervention by public administrations and banks, and apply the fairest price to final users.

The following exhibit 2 contains the linkage among the three perspectives.

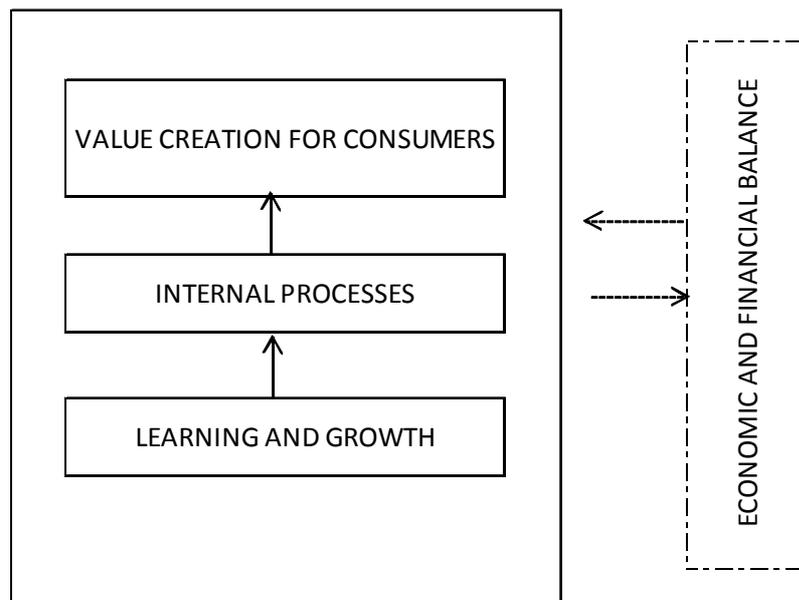


Exhibit 2: Linkages among perspectives Source: elaboration from Brusa L. (2007:100)

The previous exhibit shows that the economic and financial perspective has an influence on the other perspectives and, at the same time, it is influenced by the same. The economic and financial aspect are very important also in publicly-owned enterprises; therefore they represents a constraint, and not a final goal because companies management have to be focused on creating public utility, rather than profitability. Companies have to deal with the scarcity of resources and have to manage the available resources in an efficient and effectiveness way in order to achieve the processes excellence (Brusa, 2007).

We start off by looking at the highest perspective to identify what companies need. Then I will analyze the work which needs to be done at the lower perspectives in order to achieve the higher goals.

The strategic map identifies the key success factors, resulting from interviews, that could be considered in common for all companies analyzed. Each company should adapt the model depending on the specific needs and activities.

In exhibit 3, the arrows of effects are from lower perspectives to higher perspectives, but the arrows of strategic interference (that are not explicitly drawn in the strategic map) are from the higher perspective to the lower ones. The different perspectives are logically and not mathematically related.

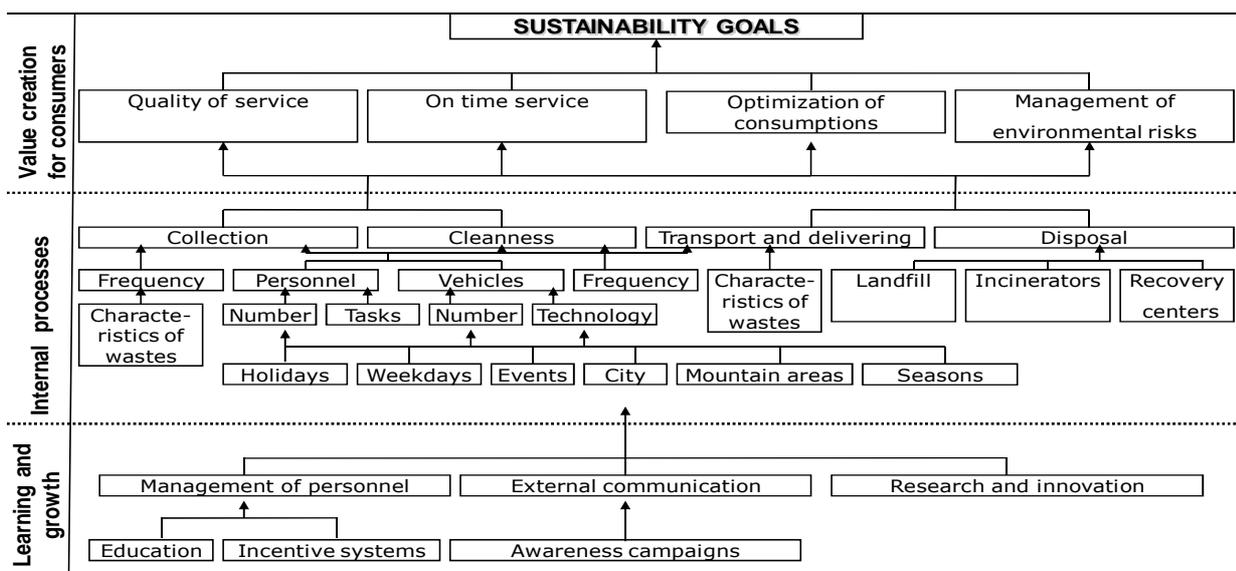


Exhibit 3: Strategic map for companies operating in waste sector Source: personal elaboration

The model proposed should help companies to detect strategic environmental and social objectives and illustrate causal relationships between qualitative soft facts and financial performances (Bieker et al. 2001).

As described before, the basic objectives of management are orientated towards the creation of value for final users (citizens). The value creation is a different concept compared to consumers’ satisfaction: for example, the waste separation can be in contrast with users’ needs because it requires more efforts in terms of time and comforts, but it allows to protect the environment and improve the citizens’ quality of life.

The creation of value for consumers can be reached towards an on time service with high level quality standards. Therefore, the value creation can derive also from an optimization of resource consumptions, trying to

reduce the environmental impacts generated by the company activities, and a properly management of environmental risks, in order to safeguard the territory and the health of citizens. These key success factors enable companies to reach the environmental goals, and to increase the wellbeing (quality of life) of local communities.

The second perspective concerns the internal processes in which the organization must excel. The map proposed highlights the critical processes which, if managed in an efficient and effective way, enable the organization to reach in time, the goals of the previous perspective.

The critical processes for the companies analyzed concern the collection (on public property or in private buildings), the transport and delivery, the management of disposal centres and urban cleaning.

As highlighted in exhibit 3, the process excellence can be achieved through an adequate planning of the frequency of the service; skilled employees in terms of numbers, tasks and hours of work; vehicles in terms of numbers and technology used, and finally a proper management of disposal centres (landfill and recovery-waste plan). Defining the frequency of the service is relevant because it influences the efficiency (costs) and effectiveness (quality of service) of cleaning and collection processes. In addition it depends on, but can also be influenced, by the number of vehicles and employees.

The third perspective identifies the infrastructure that companies must build to create long-term growth and learning. The process must be supported by continuous improvement of technologies and capabilities. This perspective takes into consideration the intangible assets as employee management and external communication. For the companies operating in the waste sector the role of employees is crucial in order to obtain a high performance. In fact, in the majority of the companies analyzed a system of suggestions in order to create a communication bottom-up that is present and this has resulted in an improvement in internal process performance. In addition, the personnel who is involved in the waste collection, especially regarding the collection in buildings, acts as mediator between the company and the final users and hence can understand the level of satisfaction and propose new solutions to increase the process efficiency and the perception of service quality to companies' managers.

The key role of employees, especially of those working in the operating line, is recognized by company's managers, so employees are involved in regular educational meetings in order to improve their skills and consequently the process performances.

Another aspect of the perspective concerns the communication campaigns organized by companies.

The campaigns are promoted in order to communicate the new initiatives carried out in the territory and engage citizens in companies' goals and policies. These are a powerful tools that, when properly used, enable the companies to build reliance and partnership relationships with the local community; but communication campaigns allow companies to modify citizen's behavior and consequently companies' performance as well. The last intangible asset is the research of technological innovation which requires a cooperation with suppliers and research centers in order to find the best technological solutions at the lowest environmental impact. The internal technologies can strongly influence the process execution and the final performance of companies.

Performance measures: a suggestion

After designing the strategic map it is important to identify what should be done to make the strategy effective: the map does not show the key actions to be carried out and the key performance indicators to be monitored.

In the following exhibit a scheme that shows the success key factors included in the strategic map, the connected key actions and key performance indicators are presented.

STRATEGIC GOALS	SUCCESS KEY FACTORS	KEY PERFORMANCE INDICATORS	FORMULA	KEY ACTIONS
<i>Value creation for consumers</i>	<i>Quality of service</i>	<i>Quality of waste separation</i>	<i>Tons of separated wastes not accepted in recovery centers / total wastes differentiated</i>	<ul style="list-style-type: none"> • <i>Compliance with quality procedures</i> • <i>International qualifications</i>
		<i>Perception of service quality</i>	<i>Vote obtained in the questionnaires (scale 1-10) distributed to a statistically significant sample</i>	
		<i>Level of road and public area cleanness after sweeping</i>	<i>Vote obtained in the questionnaires (scale 1-10) distributed to a statistically significant sample</i>	
	<i>On time service</i>	<i>Complaints</i>	<i>Number of complaints for delays received by the call center in a year</i>	<ul style="list-style-type: none"> • <i>Logistic optimization</i> • <i>Focus on organization and operative planning</i>
	<i>Optimization of consumptions</i>	<i>Production of emissions</i>	<i>CO2 emission generated by company's processes in a year</i>	<ul style="list-style-type: none"> • <i>Logistic optimization</i> • <i>Investments in new technologies</i>
	<i>Management of environmental risks</i>	<i>Environmental accidents</i>	<i>Number and costs of environmental contentious</i>	<ul style="list-style-type: none"> • <i>Risk certification</i> • <i>Prevention activities</i> • <i>Education of personnel</i>
<i>Security interventions</i>		<i>Number and costs of security interventions in a year</i>		
<i>Internal Process</i>	<i>Collection</i>	<i>Coverage areas index</i>	<i>Covered areas/ planned areas to covered</i>	<ul style="list-style-type: none"> • <i>Motivation of employees</i> • <i>Continuous evaluation of the bins filling coefficient</i> • <i>Technology improvement of vehicles</i> • <i>Study of pathways</i>
		<i>Rate of absenteeism</i>	<i>Hours of absence/ hours of theoretical work</i>	
		<i>Use of overtime hours</i>	<i>Overtime hours/ordinary hours (defined by contract)</i>	
		<i>Frequency of collection</i>	<i>Bins capacity/ (waste production per head*n° of users)</i>	
		<i>Productivity of collection</i>	<i>m³ emptied/m³ to empty</i>	
		<i>Use vehicles</i>	<i>Hours of service/ hours available Km done in a year / budget</i>	
		<i>Vehicles out of service</i>	<i>Vehicles out of service/total vehicles</i>	
	<i>Cleanness (Urban hygiene)</i>	<i>Rate of absenteeism</i>	<i>Hours of absence/ hours of theoretical work</i>	<ul style="list-style-type: none"> • <i>Technology improvement of vehicles</i> • <i>Motivation of employees</i> • <i>Proper vehicles maintenance</i>
		<i>Use of overtime hours</i>	<i>Overtime hours/ ordinary hours (defined by contract)</i>	
		<i>Use vehicles</i>	<i>Hours of service/ hours available</i>	
		<i>Productivity of soil</i>	<i>Meters cleaned/meters to</i>	

		<i>hygiene</i>	<i>clean</i>		
		<i>Vehicles out of service</i>	<i>Vehicles out of service/total vehicles</i>		
	<i>Transport and delivery</i>	<i>Index of trucks filling</i>	<i>Volume filled/ volume available</i>	<ul style="list-style-type: none"> • Study the linkage with the collection process in order to optimize the numbers of vehicle trips 	
		<i>Index of delivery to disposal centres</i>	<i>Total of wastes conferred to disposal centres/ budget</i>		
	<i>Disposal</i>	<i>Wastes disposed in landfill</i>	<i>Wastes disposed in landfill/budget</i>	<ul style="list-style-type: none"> • Reduce the number of wastes managed in landfill • Optimize the energy production 	
		<i>Energy production</i>	<i>KW hours produced/ KW hours programmed</i>		
Learning and Growth	<i>Management of personnel</i>	<i>Hours of education</i>	<i>N° of educational hours per employee</i>	<ul style="list-style-type: none"> • Improve employee skills • Involve employees in company's management • Monitor the employees' satisfaction 	
		<i>Cost of education</i>	<i>Education costs/revenues</i>		
		<i>Safety at work</i>	<i>N° of contentious</i>		
		<i>Incentive system</i>	<i>N° of bonus paid/ bonus programmed</i>		
		<i>Employee's turnover</i>	<i>Entered + left employees in a period / personnel average of the period</i>		
	<i>External Communication</i>	<i>Communication campaigns to citizens</i>	<i>N° of differentiated campaigns per service and means of communication</i>	<ul style="list-style-type: none"> • Regular communication campaigns to create a periodic information linkage • Evaluate the effectiveness of the campaigns also with questionnaires and interviews 	
		<i>Awareness</i>	<i>Percentage of recycling wastes after the campaign compared to the previous period</i>		
	<i>Research and innovation</i>	<i>Impact research expenses</i>	<i>Research expenses/ Revenues</i>	<ul style="list-style-type: none"> • Actions concerning the research of new technologies with low environmental impact 	
	Economic and financial Balance	<i>Economic balance</i>	<i>Operating Income</i>	<i>Revenues-operating costs</i>	<ul style="list-style-type: none"> • More rational organization of resources • Identify areas of wasted resources • Cost containment • Improve the management of capital invested
			<i>Contribution margin</i>	<i>Revenues-Variable costs</i>	
<i>Overhead costs per each service</i>			<i>Effective overhead / budget</i>		
<i>Net profit</i>			<i>Total revenues-total costs of the year (balance sheet)</i>		
<i>Financial balance</i>		<i>Funds balance</i>	<i>Equity / total invested capital</i>		
<i>Other financial indicators</i>		<i>...</i>	<i>...</i>		

Exhibit 4: suggestion of performance indicators Source: personal elaboration

Looking at exhibit 4 it is possible to identify in the perspectives of the strategic map, the main key success factors, the key performance indicators and the key actions. The framework has been built following the logics of balanced scorecard (Kaplan and Norton, 1996) and highlights the steps necessary to translate the strategic themes

into actions. Through the balanced scorecard it is possible to include financial measures and other kinds of measures regarding customer satisfaction, internal processes, employees and capabilities which are linked to a system performance that should lead to long-term success. This characteristic makes the balanced scorecard different from other managerial tools, such as Tableau de Bord (Epstein and Manzoni 1998).

The environmental indicators which enable the compliance with environmental standards, and social indicators enabling companies to improve the relationships between the companies and the community and reach high standards of service in order to improve the quality of life perceived. The social indicators are present in the quality of service; on time service; the process collection; the urban hygiene processes and communication campaigns. The environmental indicators concerning the optimization of consumptions; management of environmental risks; disposal, delivery and transport processes; communication campaigns and research and development, monitor the companies' performance in order to minimize the environmental impact.

For each process described in the exhibit above, companies should identify the revenues and the costs in order to evaluate where they generate inefficiencies and schedule the appropriate corrective actions.

The number of indicators must be adequate for the different levels of the organization and adapted on the basis of the strategic goals, the activities developed and the peculiarity of the local territory.

The definition of key performance indicators is a delicate stage which requires the involvement of those who are responsible for the achievement of the goals and the detection of a fair compromise between accessibility and commitment. In other words, to obtain the maximum benefits from the system it's necessary to share strategy with the whole organization. By communicating the strategy and by linking it to personal goals the system creates a shared understanding and commitment among all organization employees (Vola et al. 2007).

The following step concerns the translation of each strategic initiative into action plans which are assigned to a leader, a program or project team and a budget (Kaplan and Norton 2000).

So, the identification of strategic initiatives, and their translation into operational terms towards the program or project management tools, is just the last step in strategic planning (Brusa 2007). First of all, companies must identify the key success factors and their cause and effect linkages and then search for the key performance indicators necessary to monitor them adequately.

CONCLUSIONS

This analysis aims at studying a particular strategy implementation tool in publicly-owned enterprises which operate in the waste and urban hygiene sector. The reference model is the one theorized by Kaplan and Norton (2001, 2004): the strategy map.

The publicly-owned enterprises operating in the utilities sector are now facing radical changes in market systems, especially due to liberalization.

In addition, the changes in rules of law also pay attention to the company's environmental and social performances. In fact, it is increasingly the case that, in order to survive and thrive, organizations must make decisions which serve the interest of the environmental and the society (Adams and Frost 2008: 289). So, by transforming the competitive arena, companies need to implement monitoring performance systems in order to align the organizational units to the strategy and to control the sustainability-related issues.

In this framework, a comprehensive measure system to control success key factors occurs; the system must directly reflect the companies' strategy and must consider the crucial problem of the alignment of the different organizational units. In order to formalize the strategic process for the companies analyzed, the first step is represented by the design of the strategy map, in which all success key factors are included and linked by cause

and effect relations. The map presented has been adapted from the model of Kaplan and Norton in order to highlight the success key factors necessary to reach the economic, social and environmental strategic goals.

This map could be a valid framework for companies which operates in the waste sector , but it must be personalized on the basis of the specific company's needs, mission, culture and goals.

The strategy map is the starting point to trace the indicators necessary to monitor the performances. The companies of the sample analyzed only monitor some indicators without a specific reference to the strategy map thus risking missing the link between the success key factors and the indicators. The consequence is that the strategy risks remaining an abstract concept and not being translated into operating actions. For this reason when drawing up the set of indicators, I have identified a proposal of key actions necessary to reach the strategic sustainability goals.

The possible development of the research is oriented towards a comparison between the publicly-owned companies and the private companies operating in the waste sector, so as to study if there is a change in the strategic goals, in the perspectives and in the success key factors analyzed in the strategy map.

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FINANCIAL REPORTING: QUO VADIS?

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This paper reflects on the confusion and indecision that the march of globalisation has inflicted on the accounting profession. It identifies the winners and losers in an accelerating harmonisation process that initially progressed with some degree of lethargy following the inception of the International Accounting Standards Committee (IASC) in 1973. The current financial crisis engulfing the world has led some to demand an increase in regulation to avoid, in future, the exploitation that predicated the present contagion. Continued harmonisation of accounting and financial reporting standards is considered essential to this ideal although it would require a change, globally, to the present inadequate enforcement authority.

Rather than simply accept this one-dimensional view, the paper examines the probable situation that would exist in the absence of any form of guidelines to manage the changes facing the profession as a result of the increasing globalisation of business. Using deductive reasoning, the conclusions drawn in this paper are that the financial markets could easily circumvent the absence of harmonised accounting standards, as it has done quite well in the past, but business generally is likely to experience fraud on a significant scale.

Even so, the paper introduces the possibility of an alternative, market-driven approach that may resolve the ongoing difficulties inherent in the bureaucratic, top-down process currently being undertaken. The authors acknowledge that it is not possible to fully assess the potential of this, or indeed any other alternative, without considerable research and questions the reluctance of the profession to actually carry that out.

Keywords Accounting standards, fraud, globalisation, regulation

INTRODUCTION

Accounting is the system an organisation uses to measure its financial performance by recording and classifying transactions of value. Accounting also provides ways to present this information that make it possible to evaluate an organisation's past performance, present condition and future prospects for decision making by a range of users. Interested external readers may use this information in an attempt to evaluate the organisation while managers may try to use it to plan and control the organisation's operations. Because these two audiences use accounting information in different ways, accounting has two distinct facets, both of which embrace an extensive range of practical techniques which may be used at various times in the course of evaluating or managing any organisation (Jones, 1995). While not wishing to ignore or trivialise the impact of globalisation on the needs of internal users, it is the implications to the external users that are the locus of this discussion.

Financial accounting is concerned with preparing information for the outside world. Those interested parties, external to the organisation, use this accounting information to satisfy a variety of interests. Suppliers, banks and other lenders want to know whether the organisation is creditworthy. Investors and owners are concerned with the organisation's profitability and growth. Government agencies are mainly interested in regulating the organisation and the collection of taxes (Perks, 1993) however the nation-state based operation and regulation of organisations is increasingly being affected, and in many cases influenced, by the impact of non-domestic competition and regulatory requirements. These influences notwithstanding, all users need financial information that is relevant, objective, consistent over time and comparable to that supplied by other organisations.

Once the financial statements are prepared it is necessary for many organisations to have those statements, as well as the nature of the underlying transactions and the recording of those transactions in the accounting system, reviewed by a competent, independent professional. It is acknowledged that this review, or audit, is not required

for all business entities, yet it is often mandated under legislation, or employed to give assurance in one form or another to users of the financial statements. As part of the process of ensuring relevance, consistency and comparability, for these business entities it would be expected that the professional undertaking the review, the auditor, would employ an assiduous approach in line with some approved guidelines.

Such a requirement would suggest that financial accounting statements ought generally to conform to certain standard formats and ought to be prepared in accordance with uniform generally accepted accounting principles. Furthermore, the audit review and attestation would be conducted in accordance with a set of defined guidelines. In a purely domestic setting this has certainly been the case for many years. Internationally, however, it has been a different proposition for, until the latter part of the last century, diversity of national legislation, tradition and culture resulted in a disparity of accounting and auditing practices throughout the countries of the world (Harris, 1998).

On planet Earth it would seem that accounting is not, as Morgan (1965) appears to have believed, an exact science. Using identical financial and other data, accountants may legitimately derive a wide variety of results depending on the assumptions they make, the way they interpret the accounting rules, and the areas of accounting or reporting that are not yet covered by accounting standards or that involve subjective estimates. Indeed, when considering the financial reporting requirements of an organisation that operates in many parts of our global village, this presents significant difficulties for preparers, auditors and users of these financial reports.

To some extent then, accounting numbers represent human judgement. They do indeed provide a picture of the organisation as Hines (1988, p.257) suggested, but that picture has been constructed with the artist's concept of reality or purpose. Users of the information generated in this way think and act on the basis of that picture, "and by responding to that picture of reality, they make it so". This is a concern shared by Miller (1994, p.1) who suggests that accounting is "an attempt to intervene, to act upon individuals, entities and processes to transform them and to achieve specific ends". So, a view that holds some currency is that the underlying purpose of accounting is to persuade through presentation; in short, communicate. What seems less clear at this juncture is what it is that accountants are communicating and to whom.

This dilemma arises because of the vast constituency with whom accountants are trying to communicate. As with any group of reasonable size, the needs of its members are disparate. Consequently, for many years the accounting profession has struggled with a 'one size fits all' approach to the determination of accounting and auditing standards. Indeed, the on-going transfer from national to international development of accounting regulation is perhaps the clearest example of this way of thinking.

Many would say that this transfer, the harmonisation project, continues to progress at too slow a pace, continuing to get in the way of efficiency and incurring significant additional costs for multinational preparers of financial statements and their auditors. As a consequence both groups continue to champion the need for a single, universally accepted conceptual framework and operating principles. These professionals are no longer alone at the forefront of the drive for change. Oliverio and Newman (1997) indicate that users of the financial information being disseminated around the global village have also added their rallying cry to the cause. Now, world leaders, as a result of the current global financial crisis, are calling for stronger global regulation of accounting and auditing standards with the G-20, at its April 2009 meeting, concluding that standard-setters should "make significant progress towards a single set of high quality global accounting standards" (2009, p.6). The global impact of the financial crisis clearly supports this.

It is against this background that the accountancy profession continues to be bombarded by an ever-increasing number of laws, regulations and other kinds of standards and guidance. This trend will only continue, if not escalate, following the final report of the joint International Accounting Standards Board (IASB) – Financial Accounting Standards Board (FASB) Financial Crisis Advisory Group (FCAG), which made it quite clear that "it is critically important to achieve a single set of high quality, globally converged financial reporting standards that

provide consistent, unbiased, transparent and relevant information, regardless of the geographical location of the reporting entity" (2009, p.2).

Yet it should be remembered that this is only one side of the debate, being promoted, in the main, by those with a vested interest and supported by panicking politicians whose policies arguably led to the present contagion. As with all debates, there is another side and that is the incessant demand for financial information to be presented in such a way that it may be put to use as a functional decision-making and compliance instrument by stakeholders and the community. Needless to say the current underlying dogma is that *being local is bad, going global is good*. The result of such a doctrine is that traditions, customs, and local accounting dialects are considered antiquated barriers that a truly modern accounting community is expected to overcome. Lehman (2001, p.4) asked: "who benefits the most from the harmonisation project"? In a global context, let's see if there is a reasonable answer to that question.

FACT OR FICTION?

Over time, many 'must have' products or ideas have been important only in the minds of their inventors. Is it possible that this may be said of the concept of a single, universally accepted set of accounting and auditing principles? For, despite continuing and strong international interest in the harmonisation debate, major problems of definition and confusion over ambiguous terminology remain to seemingly confront all attempts at objective inquiry.

There is, however, a reasonable degree of consensus that the economic activities of national economies are following a path of increasing global integration. The primary drivers as suggested by Ohmae's (1995, 1999) initial perception of the forces that are shaping these changes are: the new information technologies and knowledge-based industries; major shifts within the international division of labour; the development of strategic alliances and joint ventures by transnational organisations; and the global movement of financial capital of which over 75 per cent is in private hands. It is the last of these that is crucial to the debate for it is the providers of financial capital who are most interested in financial statements (FCAG, 2009). Their importance acknowledged, one must question whether this financial globalisation is as unprecedented as cheerleaders of the 'new economy', such as Friedman (1999), would have us believe.

International capital flows are not a new phenomenon. They have always occurred when there have been large-scale international movements of goods and people. For most of modern history, capital export has been motivated by a mixture of economics and politics. Concentrating on the economic perspective, the rationale for capital export is to secure higher returns than would be possible from a domestic investment. Even short-term credits would not have been granted to foreign merchants in medieval times if there had not been the prospect of better profits than from internal trade. So, if financial globalisation has been developing since Pacioli 'came down from the mountain with the professional tablets', why is it only now that cross-border variety in accounting and auditing standards has become a problem? A fair question considering that, without the benefit of uniform financial reporting statements, investors of all kinds have been able to separate the important information from the unimportant with sufficient acumen to allow the capital markets to experience the explosive growth that they have been able to achieve (Goeltz, 1991).

For much of the more than five centuries that the present accounting model has been in existence it was hardly possible to distinguish between private, profit motivated overseas investment and public, strategically motivated overseas investment. It was often the case that private overseas investment had been officially sanctioned and therefore usually came with political strings attached. Such backing by government, real or implicit, had the attraction of reducing the risk of default by the foreign borrower. This not only made the investment attractive to private interests but also, in many respects, removed the need to make a reasonable assessment of the capacity of

the borrower to repay both principal and interest. Indeed it has been said of the bankers, Rothschilds, that they would hardly take up anything that did not have the British Government 'guarantee' about it (Kynaston, 1994).

For such circumstances to prevail, it required there to be one or more capital-exporting powers with a political or strategic agenda. For much of the last century or two this has usually been the case with Britain being the principal hegemonic power, politically underwriting international financial stability through formal and informal imperialism (Davis and Huttenback, 1986). What makes the end of the twentieth and start of the twenty-first centuries unusual is the absence of such a financially hegemonic power, yet the process of financial globalisation has continued apace.

The international component of banking activities has increased dramatically in this time. Between 1977 and 2006, the international claims of banks in the world's major economies rose at an average annual rate of 11.5% growing five-fold to represent approximately 50% of world gross domestic product (GDP). This progressive internationalisation of banking activity has been driven to a large extent by the general globalisation of business and trade (Bank for International Settlements, 2007).

Global markets for goods and for capital are more open today than ever before. At the turn of the century, international trade amounted to little more than one per cent of world GDP. The figure for 1990 was 13 per cent and this had doubled to 26 per cent by 2006. This reflects the fact that international tariff barriers are currently lower than they were at the start of the twentieth century. In addition, foreign direct investment has increased similarly in the same period of time, due to an increasing number of multinational organisations, to stand at 26 per cent of world GDP in 2006. This comes about because information flows are both faster and greater in volume, greatly facilitating cross-border investment decisions. What is more, this process should go further. According to the International Monetary Fund (IMF), 144 countries still had capital controls on foreign direct investment in 1997, while 128 countries still regulated all international financial transactions (Micklethwait and Wooldridge, 2000). As such controls are progressively dismantled cross-border capital movements would get even bigger.

Clearly the activities and interests of investors, lenders and companies are becoming increasingly global. If we accept that accounting, or more particularly the generation of financial statements from the accounting records, is the way to present information that makes it possible to evaluate an organisation's past performance, present condition and future prospects, it seems imperative that the profession develops a globally accepted, high quality financial reporting framework. This means expropriating all the best ideas of the different national standard-setters and doing away with those accounting principles that unduly burden the preparers of financial statements and increase the cost of an organisation's capital. This approach should provide a framework to produce relevant, unbiased, transparent and reliable financial information that is useful for investors, lenders, creditors and others who make capital allocation decisions. Providing users with such information would seem to be the most sensible way of achieving fair, liquid and efficient capital markets worldwide. If such a coherent framework evolves, then it is logical to believe that a framework auditing will follow on the same path.

ACCOUNTING HARMONISATION

The means of achieving this objective has been the *raison d'être* of the IASB and its predecessor, the IASC, since its inception in June 1973. Since then, after extended consultations with academics, auditors, preparers, users and other interested parties, some twenty-nine international accounting standards (IAS) and eight international financial reporting standards (IFRS) have been promulgated. As the effects of the financial crisis are felt around the globe, more than 100 countries now require or permit the use of international standards or, where they have their own sovereign powers, have national standards that converge or are converging with the international standards currently in place. Clearly, convergence is now seen as being in the best interests of all concerned.

Even the attitude of the lead actors, the United States of America (US) and the European Union (EU), has mellowed as they accede to the wishes of the 'trade union' and accept the inevitability of convergence. While

there is still some way to go before a single, universally accepted set of accounting principles for recording the financial effect of business transactions and reporting for global entities becomes a reality, there is strong hope for the future as the number of countries accepting harmonisation shows.

Continuing along this path of change should not be difficult considering that, even in times of economic difficulty, global business is on the minds of senior management in countries throughout the world. Organisations of all sizes are increasingly taking their expertise to many and varied destinations on planet Earth. The optimism of these global business leaders will be a key driver in the establishment, introduction and acceptance of a single, universally accepted set of accounting principles. Why? There are two reasons. First, there are compelling strategic business considerations, rather than accounting issues, for promoting the change. Second, they and their staff are the ones who have to manage any disparity in rules governing accounting in the different countries in which they operate. Understanding each is crucial in agreeing the final solution.

What are these compelling strategic business considerations for promoting change? They include organisational marketability, cross-border mergers and acquisitions, finance raising and shareholder dialogue. In each of these situations decision-makers rely on information provided by financial reports. Until recently these reports, upon which investors and regulators depend, were based on accounting practices that varied widely by country. As such, there was a distinct lack of comparability and reliability in financial disclosures that contributed to the current financial distress. An inability to quickly detect and prevent financial problems allowed them to reach global proportions. Little attention was paid to Oxley (2001) who made it very clear that, at a time of growing interdependence in world financial markets, economic crises are not deterred by national borders. In his view, the sensible way forward is to harmonise accounting standards. This will allow investors to be better able to make informed investment decisions and also benefits will accrue to preparers and users of financial statements, costs will be reduced and growth in international trade and investment will continue.

Even in the shadow of the financial crisis, investors around the world continue to embrace the opportunity to partake in investment strategies that are no longer subject to geographical constraints or the lack of a global information network. Global investment on this scale is of concern to the auditing profession as reliance on financial reports is no longer limited to domestic investors. Further, the complexity and diversity of multinational business entities adds exponentially to the risk of auditing global enterprises. The need for a global auditing framework is thereby just as critical. Oxley's (*ibid.*) proposition, therefore, has another dimension – auditing. It is now well established that economic crises and business failure are not constrained by national and international borders and accordingly investors will have an ever-increasing focus on assurance about the reliability of financial reports, irrespective of whether the basis of their preparation is in accordance with a harmonised accounting framework.

Furthermore, the incessant growth of business globalisation is also responsible for the pressure to bring some form of homogeneity to the financial reporting process, which reflects the growing unease of auditors who are now subject to the prospect of worldwide liability to global investors. Their concern, now well and truly justified, about the ability of history to repeat itself, in the form of financial disasters, business failures and fraud of enormous proportion, manifests itself in the profession's support for the harmonisation of not only accounting standards but auditing standards and practice as well.

Even so, there remain issues to be overcome and the future is less than certain. Certainly there exists a set of standards promulgated by the IASB yet they have no force of law and unless national authorities enact appropriate legislation they will remain unenforceable. Individual countries have found it a relatively simple exercise to undertake but in others the disparity between harmonised standards and local associated business laws, languages, customs and practice make enforcement problematic. It is possible that IASs and IFRSs will be accorded worldwide authoritative support at some future time. However, this will continue to be an evolutionary process and will require continuing changes in jurisdictional accounting and reporting standards, fiscal practices

and capital market regulations. Doomsayers believe fundamental cultural and political differences will forever prevent that from happening. Certainly, in the immediate future and despite the present political will, a global mandate for international standards may not be a realistic solution but, while dealing with a disparate set of national accounting and auditing standards is a real cost of doing business, it must surely be the 'only game in town'.

REGULATION OR MARKET FORCES?

The issue of globalisation reflects a deeper question: one that involves the role of knowledge and of knowledge producers in a changing world. In this changing world it appears increasingly difficult to draw a line and separate those issues that have to be understood as technical and scientific, from the debates belonging to the realm of socio-cultural and anthropological analysis. Yet the process of harmonising accounting and auditing standards is developing a world of generalised financial communication where these seemingly unattached sets are brought together in a jumbled combination. Accounting harmonisation will almost certainly put the seemingly comfortable certainties of accounting 'as it is' into confrontation with those social and institutional contexts existing in the global environment. Far from providing a solid, unitary and coherent approach to the provision of financial information, such a mixing is likely to reflect a variety of different ways in which accounting becomes 'what it is not' (Hopwood, 1987).

One problem inherent in any top-down approach to the harmonisation of anything, accounting included, is that forced harmonisation requires compromise. If there are three ways to report a certain item, for example, and if each of the three ways is in widespread use, it must be because a substantial segment of the financial reporting community thinks that each of the methods is 'the best' way to report that item. If accounting harmonisation requires two of the three methods to be discarded in the interests of uniformity, it is fair to say that a substantial segment of that community will have to be content with a method that they deem less than best. Otherwise they all would have adopted the method voluntarily without the need for forced harmonisation. In other words, sub-optimisation will often be the result if substantial segments of the financial reporting community have to settle for less than their first choice.

With regard to the auditing community, the problem is perhaps less demanding, but still critical. Given that fundamental auditing procedures and techniques, *per se*, are universal, (acknowledging that the application in some geographical areas lacks the support of regulation and oversight), the defining variable that causes concern to auditors is largely the accounting crisis discussed above. If global accounting harmonisation was to materialise, then the accounting dilemmas facing decision makers would diminish as would the same dilemmas that challenge auditors. In essence, '*auditors are accountants looking backwards*' and as such, are directly responsible for, yet subject to, their own inability to properly harmonise the global business community. The procedures for gathering evidence are fairly universal, however if the accounting processes and standards are disparate and flawed, the auditing evidence gathering procedures will also be challenged. Until the issue of harmonisation of accounting standards is resolved, auditing standards will retain the existing current global problem.

Forced harmonisation of the accounting and auditing standards that underpin the financial reporting process involves all the dangers that are inherent in any 'one size fits all' system. One of the very real dangers is that those charged with overseeing the harmonisation process will make the wrong decision. Indeed, if decisions are made by a political process rather than by an economic process, there is a substantial probability that the decision made will be the wrong one. Even if the decision-makers always choose the method that the majority prefers, which is often not the case, a harmonised system must necessarily ignore or discount the views of the minority. If harmonisation is desirable, it does not logically follow that the government or some private group should be the impetus.

Several other arguments have also been made against regulating accounting standards. Hendriksen and van Breda (1992) mention three: regulations are conceived in crises, regulators are captured by regulatees, and regulators are reactive rather than proactive. The 'Public Choice School of Economics' would probably add a fourth reason: regulators are motivated by their own interests, not those of the public (Miller, 1997). Furthermore, top-down, centrally planned systems have proven to be suboptimal because they are structured in such a way that makes it impossible to respond to changing consumer demands. The regulators do not fully understand what all the users need, so how can they possibly give them what they want? As a consequence, decisions are often made for political rather than economic reasons.

The literature on development economics and economic systems (see, for example, von Mises, 1922; Hayek, 1935; Hoff, 1938; Boettke, 1994) has been addressing the relationship of central planning to efficiency, innovation and growth for considerably longer than the accounting profession has been pursuing harmonised accounting and auditing standards. The continuing push toward accounting harmonisation can only suggest that the accounting profession has chosen to ignore the lessons that have already been learned in other disciplines. A centralised financial reporting system adheres to the same hard rules of economics as do centrally planned economic systems. A top-down approach to standard setting is structurally inferior to a system that is consumer-driven (Yoon, 1998). In other words, there is an alternative and that is to provide a series of guidelines defining acceptable accounting practice and allow the market to determine whether the preparer is providing good quality, relevant financial information.

The market – the unregulated, invisible hand of Adam Smith – has proven more than capable of solving many important problems over the centuries without any central direction. It solved the question of railway gauge, computer operating systems, VCR v. Beta, language and numerous other important problems without top-down intervention. The possibility that the market could solve relatively minor problems, like the problems of financial reporting to an international audience has, inexplicably, not been adequately explored in the finance or accounting literature. Over a period of time, if the market were allowed to operate unhindered and if investors and potential investors were allowed to voice their opinions as to their preferences, certain methods would emerge as being better than others. If no reasonable and informative method is prohibited, new methods, not now existing, might well emerge to resolve financial reporting issues that the present day regulators choose to ignore or cannot yet imagine.

In a perfect world we would not need an IASB because accounting standards would be developed through direct negotiation between corporate management and shareholders (or analysts serving as their proxies). All elements of financial reporting from recognition and measurement through to disclosure, the extent of which probably matters the most, would therefore be investor focused, responsive to specific investor needs and delivered at a cost that preparers, in their role as agents for investors, would be willing to bear. This is a market based proposition that begins with the premise that markets are efficient and that corporate management has an incentive to provide the information that their constituency wants. If they do a good job of providing it, they are rewarded in the market place. If they do an inferior job, they are punished (Holthausen and Leftwich, 1983; Scott, 1997; Wolk and Tearney, 1997). The market is a stern overseer and will swiftly and severely punish those who don't perform in the expected manner.

Yet this is not always the case and so when, from time to time, markets do not work perfectly, governments feel obliged to intervene to correct for market failure, as they have done in the current financial crisis, by introducing new or strengthening existing regulations. Without doubt such an approach involves a *non-sequitur*. Just because the market does not always work perfectly, it does not logically follow that government intervention is needed to make things better. In actual fact, government intervention may even make things worse but it is acknowledged that accounting policies do sometimes make a difference (see, for example, Lev, 1979).

And so the question is not so much whether to regulate but rather who regulates: some quasi-governmental agency or the market? We leave this dilemma unresolved for the time being for it is an issue over which there will be no early compromise. Yet it does not make sense to abandon the work that has been carried out so far. While practical problems in implementing a global financial reporting framework remain, there is at the present time considerable pressure on the accounting profession to progress the harmonisation project. Harmonisation of the auditing profession will then follow.

SUMMARY

Throughout this paper the notion of 'transparency' has been omnipresent. In the sense of financial reporting it has been used to imply better quality information. That is the objective of harmonised standards but mere uniformity in accounting and auditing rules will not guarantee better quality information. Based on the preceding discussion it should be admitted that internationally accepted standards will help global flows of capital, but creating international standards alone is not enough to result in meaningful or sustained improvement in the functional decision-making instrument used by stakeholders and the community. There needs to be an adequate compliance mechanism in place but whether that should be regulatory or market based is a matter of conjecture. Maybe if an answer is provided to Lehman's (2001) question it ought to be possible to assess how the overall reform may be packaged. It is easier to answer if the question is addressed from the opposite perspective. In other words, who wins and who loses in an environment of diversity?

Winners from worldwide diversity in financial accounting and reporting practices include, first of all, the financial analysts who profit from their interpretation of these divergent reports from country to country on behalf of brokerage firms, investment newsletters and portfolio investors themselves. National accounting regulators also gain because they have complete authority over national GAAP in their respective jurisdictions. This is a source of administrative and political power for them. Accounting professionals are also potential winners because diversity generates fees when clients set up new business units in different GAAP territories or when cross-border auditing has to be performed. Finally, business consultants gain from rendering advice on the basis of financial information differentiated by different GAAP applications.

Portfolio investors stand to lose the most because misunderstandings stemming from diverse reporting practices are likely to reduce their investment returns. Businesses operating in several jurisdictions lose because complying with different GAAP sets is costly and often misleading. Consumers and other general markets participants are also likely losers since financial inefficiencies tend to increase consumer prices and also tend to make markets less efficient. Finally, economic policy makers are negatively affected since they do not have comparable information from country to country and therefore they must spend time and effort to adjust economic data of all sorts to a homogeneous or at least comparable basis.

Auditors are similarly challenged. From a slightly different perspective, we must recognise that there has been abundant litigation against auditors to compensate shareholders and sometimes third parties for losses and unmet expectations (O'Malley, 1993). The public perception is that auditors have an unmistakable responsibility for the detection of fraud and prevention of mismanagement. Yet this is not so, and the failure of the accounting profession worldwide to address the public's unrealistic expectations regarding the independent auditor's role in preventing business fraud and reporting mismanagement has exacerbated the situation. For many years professional accounting bodies in most countries have been agonising over how to deal with the expectation gap problem with limited success. As globalisation increases, the growth of fraud and opportunistic mismanagement also increases and this has a knock-on effect in all countries. Investment by local investors and financial institutions in foreign companies and by foreign investors and financial institutions in local companies is only provided at a higher cost as the providers of funds seek to mitigate their exposure to the global risk.

How bizarre that those who least benefit from the harmonisation of diverse national accounting and auditing standards are the very people who have been managing the process. No wonder they have been dithering over a project that in most other circumstances would have been effectively completed, or trashed if that course of action was deemed to be in the best interests of those for whom financial information is prepared, many years ago. But this may be unkind. As a result of the continually changing global business environment there are difficult conceptual and practical issues facing the accounting profession and those producing and using financial statements. There are deep-seated differences of opinion coloured by established national approaches and contrasting regulatory philosophies and in some instances short-term opportunism.

Perhaps the most fundamental of differences lies in the question of the degree of detail appropriate in setting out the standards. Central to the debate is whether a standard should attempt to describe precisely the application of principle in almost all conceivable cases or simply be clear on the overall principle and provide more general guidance on its application. The latter, supported by precedents determined on a case by case basis as a result of actual audits, would seem to be the preference of those charged with interpreting the standards in the preparation of financial statements and accounting reports. This approach to harmonisation focuses on the strategic rather than the technical merit of the process and seems capable of providing uniformity and comparability of information.

Finally, it has to be said that impeccable international accounting and auditing standards are one thing, enforcement is another. This is a most critical aspect that will ultimately determine the success or failure of the harmonisation process. Neither the IASB nor the IFAC has a mandate or the authority to enforce their standards. That essential role is for the national regulators and for the audit firms themselves. Does not this, and earlier arguments, suggest that the most appropriate way to provide investors of all kinds with the information they need would be to replace the present coercive, authoritarian, top-down model with a set of market-driven rules or guidelines supported by case studies?

IMPLICATIONS FOR BUSINESS

For many commentators (see, for example, Micklethwait and Wooldridge, 2000 and Giddens, 1999) globalisation is a force for good, promising nothing less than a perfect future as it subverts the nation state, but also 'traditional' cultures. The present process of harmonisation represents nothing less than the globalisation of accounting and auditing standards. As such, and in this respect the IASB and others have been quite open, IASs, IFRSs and ISAs that have replaced the national standards of many countries are built on a possibly unstable foundation of compromise. In so doing they will quite possibly erase any socio-cultural influence on the principles and practice of both accounting and auditing in sovereign states. Those who think this a touch extreme should ponder only for a moment on the European Commission's autocratic dictates across an infinitely wide spectrum of business regulation.

But such behaviour will not only apply in the EU. The tentacles of the harmonisation process stretch across planet Earth. Business organisations, particularly those based in capitalist societies, support the process because it will reduce their cost burden and allow them to make even greater profits. It is difficult to complain too much about this because that is their fundamental charter. Yet as a profession, how can accountants reconcile the conflict that may arise in Muslim based jurisdictions over a simple reporting item such as interest expense (for a discussion on the impact of Islam on accounting practice see Lewis, 2001)? And how will they be able to honestly attest that a set of consolidated financial statements prepared in accordance with IASs and containing information from Russia, with an inflation rate of 12.7%, and Cyprus, with an inflation rate of 2.6%, represent a true and fair view of both financial performance and financial position of the consolidated entity?

Regulated harmonisation of accounting and auditing standards is a juggernaut on the global field of change and in this respect Friedman's (1999, p.12) imaginary conversation between the former US Treasury Secretary,

Robert Rubin, and the Malaysian Prime Minister, Mahathir bin Mohamad, reflects the views of many within the profession:

"Ah, excuse me, Mahathir, but what planet are you living on? You talk about participating in globalization as if it were a choice you had. Globalization isn't a choice. It's a reality. There is just one global market today and the only way you can grow at the speed your people want to grow is by tapping into the global stock and bond markets, by seeking out multinationals to invest in your country and by selling into the global trading system what your factories produce. And the most basic truth about globalization is this: No one is in charge, not George Soros, not 'Great Powers' and not I. I didn't start globalization, I can't stop it and neither can you..."

It is, of course, profoundly true. All businesses will be required to 'follow the leader' and so, unless there are some imminent changes of heart, a set of financial statements prepared in accordance with international GAAP, and audited in accordance with ISAs, will be commonplace in the not too distant future. Staff will be needed who are capable of working with the new regime. So, forewarned is forearmed, management of both business entities and professional firms will need to ensure that resources are available within their organisations, or at the very least can be bought in, to accommodate the impending change.

There is, of course, an alternative for those not committed to the notion that financial statements prepared in accordance with international GAAP present a sensible financial picture of an organisation to its stakeholders. Follow the conviction of Hines (1988) and provide them with something that does. Exactly how that may be done and what is entailed is beyond the scope of this paper. However, by taking a strategic view of the situation it should be possible, with the help of some committed professionals, to develop accounting concepts and a reporting mechanism that not only meets the needs of stakeholders but of the market in general. Of course, this is only one half of the problem. If the stakeholders continue to require the comfort of an independent review of the financial statements then a similar approach needs to be taken in the determination of acceptable audit practices. It must be said, however, that audit practices cannot reasonably be addressed until the accounting dilemma is solved.

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EVALUATION OF REGIONAL TRADE FLOWS, TRADE COEFFICIENTS AND MULTIPLICATIVE EFFECTS ON PRODUCTION AND EMPLOYMENT

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The main purpose of this study is to construct a complete three region interregional input – output model and to indicate how this model can be applied as a tool for regional analysis. We focus on the issue of applying the model in order to estimate trade flows, trade coefficients and multiplicative effects on production and employment. The methodology used is the application of input – output analysis to interregional relationships based on Chenery - Moses interregional model.

The results of the study accomplished by the construction of an interregional – interindustry input – output model which provides a description of interregional flows between the three regions as well as the trade coefficients of the Greek economy. On the basis of the model implementation production and employment multipliers were estimated from 2000 data for three regional systems.

With respect to the research limitations, the input – output analysis presupposes a rigid production and consumption technology that assumes away and adaptability to a changing environment. This limitation is well known and unavoidable if we use an input – output model.

The interregional model is the first effort for the regional delineation of the Greek economy. We also note that the practical implication of the construction of an applicable and reliable model was needed to bridge the existing statistical gap.

INTRODUCTION

The use of input – output techniques in economic analysis has been and still is extensive. Researchers are able to obtain under assumptions, multipliers that guide them in the understanding of the productive structure of an economy and are useful to approximate the underlying effects.

The point of departure for an interregional input – output study, is an accounting framework comprising estimated intersectoral and interregional trade flows and the economic processes determining these flows. Here we also attempt to capture the implied effects on production and employment of an exogenous change in final demand within an interregional model.

The purpose of this study is the construction of an interregional model for Greece and the estimation of multiplier effects on production and employment for the regional economies.

Specific objectives that fall within the major objective are :

To formulate a precise interregional model with regional technical coefficients for the Greek nation.

To apply the model to evaluate production and employment multipliers for the three regions using impact analysis.

To identify the sectors which have major influence in terms of generation output and employment within the regions.

Finally to suggest solutions about the empirical implementation of the results.

Our empirical application tries to exploit the structure of a recent 2000 interregional input – output matrix of three regions to study the impact upon the productive sectors of exogenous changes in demand.

Application of the model to regions other than the three treated here could be accomplished by some additional information. The data and procedures upon which this analysis is constructed when combined with some additional information could be applied to a different system of regions from that in this study.

The paper will be divided in five parts. Section 2 refers on a review of literature. Section 3 describes the research methodology of the interregional model and the data base used. In section 4 we introduce the impact indicators and we present the empirical results. We close the paper with a section that summarises the results and limitations of the analysis, and the contribution of the field.

LITERATURE REVIEW

The fundamental purpose of the input – output model is to analyse the interdependence of industries in monetary units in an economy (Miller and Blair, 1985). Input – output analysis was developed by W. Leontief in the late 1930s, and for his contribution in the area he received the Nobel Prize in Economics Science in 1973. The input – output model based on a system of linear equations, which represent for the distribution of an industry's output throughout the economy. Leontief applied this technique in the U.S. tables for 1919 and 1929 in 1936.

The regional input – output models may deal with a single region or with two or more regions and their interconnections. The several – region case is termed interregional input – output models (IRIO) (In one version) or multiregional (MRIO) input – output analysis (in another version).

Such classical interregional or multiregional models associate with authors as Isard et al (1960), Chenery (1953), Moses (1955), Leontief and Strout (1963), Hartwick (1971) and Polenske (1980).

The U.S. M.R.I.O model suggested (independently) by Chenery (1953) and Moses (1955). For this reason is classified as the "Chenery – Moses" model.

Duchin (2005) designed the World Trade Model and its predecessor, the world input – output model of Leontief, Carter and Petri (1977).

METHODOLOGY

The model applied in this study follows the Chenery – Moses type formulations. The interregional input – output matrix provides a complete description of the intra and interregional relations between a region with its productive sectors and the other regions comprising the matrix.

The data requirements of the interregional model are:

- (1) Technical input requirement for each industry in each region a_{ij}^k and
- (2) Trade flows for commodities between regions,

$$t_i^{k1} \left(t_i^{k1} = r_i^{k1} / R_i^1 \right)$$

or the ratio of commodity i shipped from region k to region 1 to the total receipts of commodity i in region 1 from all regions including itself).

The model consists of the following basic equations:

$$(1) D^s = A^s X^s + Y^s$$

$$s=1,2,\dots,m$$

$$k=1,2,\dots,m$$

$$(2) X_K = T_K D_K$$

Equation (1) states that the total demand of a region for each good, D^s , is the sum of its final demand, Y^s , and its intermediate demand, $A^s X^s$, (A is the input coefficients matrix). Equation (2) the innovation of Leon Moses, states the equality of commodity demand, $T_K D_K$ and supply, X_K . Thus, if the total demand for each commodity in each region is known, and if regions acquire each good according to a fixed regional purchasing pattern, the impact on each region of any change in the level of activities can be determined.

When final demands Y^s are given, this system can be solved for outputs, X^s by eliminating the variables D^s and D_K from (1) and (2).

So, we write

$$(1) D_C = AX_C + Y_C$$

$$(2) X_m = TD_m$$

Where D_C and Y_C are $mn \times 1$ column vectors of total demands and final demands for all goods by regions. X_m and D_m are $mn \times 1$ column vectors of total and final demands for all regions by commodity. A is $mn \times m$ diagonal block matrix composed of $M \times M$ square submatrices, with all non – diagonal blocks being zero submatrices.

Thus,

$$(1) A = \text{diagonal } (A^1, A^2, \dots, A^n)$$

Where $A^s = a_{ij}^s$ or the $m \times m$ technical coefficients matrix for each region. T is an $mn \times mn$ matrix consisting of $n \times n$ square submatrices with all blocks off the main diagonal being zero submatrices.

Thus,

$$(2) T = \text{diagonal } (T_1, T_2, \dots, T_m)$$

Where $T_K = T_K^{r,q}$ or the $n \times n$ trade coefficients matrix for the k^{th} commodity. Define E as a $mn \times mn$ permutation matrix which converts a commodity arrangement into a regional arrangement.

So that

$$(3) Y_C = EY_m, D_C = ED_m, X_C = EX_m.$$

Equation (4) can be written as $X_m = TE^{-1}ED_m$ and premultiplying by E , we have by (7).

$$(4) X_C = ETE^{-1}D_C.$$

Letting $T^* = ETE^{-1}$, we have $X_C = ETE^{-1}D_C = T^*D_C$.

Thus, a commodity arrangement has been converted into a regional ordering (8). Premultiplying (3) by T^* ,

$$(5) T^*D_C = T^*AC_C + T^*Y_C.$$

Substituting from (8), we have:

$$(6) X_C = T^*AX_C + T^*Y_C \text{ and}$$

$$(7) X_C = (I - T^*A)^{-1} T^*Y_C$$

When demands by the final demand sectors in each region are given, the system converts these demands, into a set of shipments on final demand, account, T^*Y_C , by region and determines all regional outputs, X_C .

RESULTS

Estimation of the trade flows, trade coefficients and interregional input – output matrix.

The results of estimating the interregional model for Greece are based on a statistical implementation of the Chenery – Moses model.

Studies attempting to measure the impact on a particular region of exogenous changes in the demand for products of that region have frequently used a regional input – output framework.

In this study we attempt to treat three regions with equal detail specifying a complete input – output matrix for each region, which contains a total of nine submatrices, three intraregional and six interregional and sixteen industries. We start deriving the technical coefficients for the industries of each region, dividing each element of the regional input – output flow tables by the total of flows.

The crucial contribution of this study is that the above information is used to derive regional technical coefficients. On the other hand the empirical implementation of Moses interregional model was accomplished by using national coefficients as approximation to those of each region.

The procedure whereby estimates the data pertaining to regional trade, are embodied to regional trade coefficients. Trade coefficients are defined by Mose's as $t_i = r_i^{k1}/R_i^1$, where r_i^{k1} is the shipment of commodity i from region K to region 1, and R_i^1 is the total shipments of i received in region 1, Tables 1 and 2. For example for sector A, Agriculture the trade coefficients are obtained by division of the shipment of this commodity to the total receipts received in region I, that is $t^{11} = 0.4768$.

According to the regional technical coefficients and trade coefficients, a new matrix TA derived which embodies the structure of production in each region and the structure of regional trade. This is referred to as regional input - output coefficient matrix, Table A – 1 (Appendix).

The solution of the interregional input – output matrix TA , is of the form $(I - TA)^{-1}$, and incorporates the direct plus all the indirect input requirements that would result from a unit change in the activities of any sector, Table A-2 (Appendix).

The impact upon production

The interdependence matrix, can be translated into multiplier coefficients to evaluate the ultimate effect, Table A – 2 (Appendix). Each column of the above matrix indicates the amount of each industry's produce directly and indirectly required as a result of an increase in output of one monetary unit in the industry associated with that column. So, the effects on all industries in all regions of an increase in any industry's production in any region can be calculated by multiplying that change by the appropriate coefficients.

Thus, each unit worth in manufacturing production in region I, generates 1.3469, 0.5197 and 0.1117 worth of manufacturing production in regions I, II and III respectively. Summing each of these sets of numbers give the total value of production from industry of manufacturing in the nation as a whole. Thus a unit of manufacturing production generates 1.9783 worth of activity in that industry, in the nation as a whole. The fact that national amount of activity generated varies with the location of initial activity can be attributed to a) regional differences in the proportion of imports obtained from foreign sources and b) regional differences in intermediate product mix.

The results also showed that the intra - regional impacts were always higher than any inter- regional impacts.

The results provide the importance of given sectors to initiate growth process as a response of an increase in final demand. These sectors are Financial Intermediation, Manufacturing and Constructions. Another characteristic of the Greek regional economy is the production relative homogeneity in the industrial structure.

The impact upon employment

This study presents a measure of employment generation potential or precisely a measure of the employment content in the regions studied. To this end three vectors of employment coefficients were constructed by sector and by region. Each element of a vector may be presented by the following equation :

$$I_j = L_j / X_j$$

which is the ratio between the number of employees of sector j in each region and the value of production of sector j, in the same region. Performing this operation for each sector of the three regions, we obtain the direct employment coefficients.

The direct and indirect or simple employment multiplier for an individual sector is given as

$$\sum_{i=1}^j l_j b_{ij}$$

where b_{ij} is the typical element of the interdependence matrix $(I - TA)^{-1}$ which is called simply B^{-1} .

Furthermore the type I employment multiplier of Moore and Petersen for the sector j, is derived from the ratio of simple multiplier to the direct employment coefficient of the same sector.

$$\sum \frac{l_i b_{ij}}{l_j} \quad i = 1 \dots n$$

The generation of employment in the regionalized Greek economy will be analysed on the basis of the above referred employment coefficients and multipliers. The capacity of individual region in generating

employment it appears from the findings of this section. Table 4, 5 and 6 column (1) shows the direct employment coefficients measure the additional number of workers directly employed for a unit increase in the demand per million euro. In the case of manufacturing in region I the employment will be rising by 15.59 workers in response of an increase in final demand by one million euro. While the corresponding figure in region II is 12.74 workers and for region III is 20.94 workers.

However, a unit increase in output demand for a specific industry induces demand for employment in other sectors because of the interdependence of industries. So, the number of workers required to produce the additional output can be calculated by multiplying the direct input coefficient by each component of the inverse input - output matrix.

Table 4, 5 and 6 column (2) summarises the effects caused by industrial interdependence. For example the total employment coefficient for hotels and restaurants in Region III is 17,06, while the corresponding figure in region II is 19.04.

Type I employment multipliers indicate the change of the total economy in persons employed, when the employment of the sector j changes by one person. The highest effects upon employment occurred in the following sector, Financial Intermediation Services, Manufacturing and Constructions in region I and II and Financial Intermediation in region III.

Thus an industry with a high employment multiplier means that stimulates a greater amount of employment indirectly due to its linkages with other industries than an industry with a low employment multiplier.

It is important to point out that the results must be interpreted as an indication of the sensitivity of each region in face of a possible demand increase.

CODE		REGIO N	I		II		III	
A	<i>Agriculture, hunting, forestry</i>	I	r_{1^1}	940.4129	r_{1^2}	659.99	r_{1^3}	231.07
		II	r_{1^2}	743.75	r_{1^2}	716.73	r_{1^3}	198.46
		III	r_{1^3}	288.09	r_{1^3}	219.73	r_{1^3}	250.81
			Receipts:1972.252	Receipts:	1596.28	Receipts:	680.34	
B	<i>Fishing</i>	I	r_{2^1}	0.49265	r_{2^2}	17.49	r_{2^3}	13.389
		II	r_{2^2}	21.81	r_{2^2}	0.0	r_{2^3}	28.89
		III	r_{2^3}	13.46	r_{2^3}	23.29	r_{2^3}	0.652625
			Receipts:35.76	Receipts:	40.78	Receipts:	42.93	
C	<i>Mining and quarrying</i>	I	r_{3^1}	3.19718	r_{3^2}	65.324	r_{3^3}	24.85
		II	r_{3^2}	61.37	r_{3^2}	1.66	r_{3^3}	12.10
		III	r_{3^3}	24.838	r_{3^3}	12.87	r_{3^3}	0.6304
			Receipts:89.405	Receipts:	79.854	Receipts:	37.58	
D	<i>Manufacturing</i>	I	r_{4^1}	3274.422	r_{4^2}	5823.32	r_{4^3}	148.63
		II	r_{4^2}	5281.12	r_{4^2}	7635.76	r_{4^3}	314.33
		III	r_{4^3}	230.66	r_{4^3}	537.88	r_{4^3}	194.89
			Receipts:8786.20	Receipts:	13996.96	Receipts:	657.85	
E	<i>Electricity, gas and water supply</i>	I	r_{5^1}	98.32	r_{5^2}	321.05	r_{5^3}	56.03
		II	r_{5^2}	261.13	r_{5^2}	120.88	r_{5^3}	73.96
		III	r_{5^3}	53.56	r_{5^3}	65.85	r_{5^3}	27.85
			Receipts:413.01	Receipts:	507.78	Receipts:	157.84	
F	<i>Constructions</i>	I	r_{6^1}	22.94	r_{6^2}	1344.27	r_{6^3}	206.24
		II	r_{6^2}	1277.84	r_{6^2}	46.15	r_{6^3}	394.30
		III	r_{6^3}	211.71	r_{6^3}	425.81	r_{6^3}	7.081
			Receipts:1512.49	Receipts:	1816.23	Receipts:	607.62	
G	<i>Wholesale and Retail trade</i>	I	r_{7^1}	264.07	r_{7^2}	1551.615	r_{7^3}	237.06
		II	r_{7^2}	1727.91	r_{7^2}	506.94	r_{7^3}	506.79
		III	r_{7^3}	255.74	r_{7^3}	490.94	r_{7^3}	77.45
			Receipts:2247.72	Receipts:	2549.495	Receipts:	821.3	
H	<i>Hotels and restaurants</i>	I	r_{8^1}	0.0	r_{8^2}	711.65	r_{8^3}	297.79
		II	r_{8^2}	758.59	r_{8^2}	0.0	r_{8^3}	697.92
		III	r_{8^3}	311.69	r_{8^3}	685.91	r_{8^3}	0.0
			Receipts:1070.28	Receipts:	1397.56	Receipts:	995.71	
I	<i>Transport and communication</i>	I	r_{9^1}	218.4863	r_{9^2}	694.85	r_{9^3}	117.38
		II	r_{9^2}	630.39	r_{9^2}	582.55	r_{9^3}	283.93
		III	r_{9^3}	119.89	r_{9^3}	319.66	r_{9^3}	98.408
			Receipts:968.77	Receipts:	1597.06	Receipts:	499.72	
J	<i>Financial intermediation</i>	I	r_{10^1}	3140.008	r_{10^2}	2843.86	r_{10^3}	357.89
		II	r_{10^2}	2755.94	r_{10^2}	8494.25	r_{10^3}	938.22
		III	r_{10^3}	354.169	r_{10^3}	958.086	r_{10^3}	1068.972
			Receipts:6250.177	Receipts:	12296.19	Receipts:	2365.08	
K	<i>Real estate, renting</i>	I	r_{11^1}	210.5596	r_{11^2}	538.98	r_{11^3}	109.35
		II	r_{11^2}	482.242	r_{11^2}	346.71	r_{11^3}	161.09
		III	r_{11^3}	111.97	r_{11^3}	184.36	r_{11^3}	70.33919
			Receipts:804.77	Receipts:	1070.05	Receipts:	340.779	
L	<i>Public administration, defense and social security</i>	I	r_{12^1}	0.0	r_{12^2}	976.75	r_{12^3}	85.98
		II	r_{12^2}	886.013	r_{12^2}	0.0	r_{12^3}	296.79
		III	r_{12^3}	90.118	r_{12^3}	342.94	r_{12^3}	0.0
			Receipts:976.13	Receipts:	1319.69	Receipts:	382.77	
M	<i>Education</i>	I	r_{13^1}	3.784011	r_{13^2}	172.93	r_{13^3}	25.80
		II	r_{13^2}	67.972	r_{13^2}	7.22	r_{13^3}	19.34
		III	r_{13^3}	17.235	r_{13^3}	32.87	r_{13^3}	1.07688
			Receipts:88.99	Receipts:	213.02	Receipts:	46.217	
N	<i>Health and social work</i>	I	r_{14^1}	6.81543	r_{14^2}	326.85	r_{14^3}	47.6612
		II	r_{14^2}	276.012	r_{14^2}	12.49	r_{14^3}	73.7713

		III	$r_{14}^{31} =$	45.8687	$r_{14}^{32} =$	84.073	$r_{14}^{33} =$	1.821596
			Receipts:328.696		Receipts: 423.413		Receipts: 123.254	
O	<i>Other social services</i>	I	$r_{15}^{11} =$	135.9105	$r_{15}^{12} =$	151.985	$r_{15}^{13} =$	67.65
		II	$r_{15}^{21} =$	171.011	$r_{15}^{22} =$	267.51	$r_{15}^{23} =$	149.82
		III	$r_{15}^{31} =$	70.585	$r_{15}^{32} =$	138.93	$r_{15}^{33} =$	119.0725
			Receipts:377.51		Receipts: 558.425		Receipts: 336.54	
P	<i>Private households with employed persons</i>	I	$r_{16}^{11} =$	0.0	$r_{16}^{12} =$	0.0	$r_{16}^{13} =$	0.0
		II	$r_{16}^{21} =$	0.0	$r_{16}^{22} =$	0.0	$r_{16}^{23} =$	0.0
		III	$r_{16}^{31} =$	0.0	$r_{16}^{32} =$	0.0	$r_{16}^{33} =$	0.0

Table 1 SHIPMENTS (2000, in million euros)

CODE	SECTORS	REGION S	I	II	III
A	<i>Agriculture, hunting, forestry</i>	I	0.4768	0.4135	0.3396
		II	0.3771	0.4490	0.2217
		III	0.1461	0.1375	0.3687
B	<i>Fishing</i>	I	0.0137	0.4289	0.3119
		II	0.6099	0.0	0.6729
		III	0.3764	0.5711	0.0152
C	<i>Mining and quarrying</i>	I	0.0358	0.8180	0.6612
		II	0.6864	0.0208	0.3220
		III	0.2778	0.1612	0.0168
D	<i>Manufacturing</i>	I	0.3727	0.4161	0.2259
		II	0.6011	0.5455	0.4778
		III	0.0262	0.0384	0.2963
E	<i>Electricity, gas and water supply</i>	I	0.2380	0.6323	0.3550
		II	0.6323	0.2380	0.4778
		III	0.1297	0.1297	0.2963
F	<i>Constructions</i>	I	0.0152	0.7401	0.3394
		II	0.8449	0.0254	0.6489
		III	0.1399	0.2345	0.0117
G	<i>Wholesale and Retail trade</i>	I	0.1175	0.6086	0.2886
		II	0.7687	0.1988	0.6171
		III	0.1138	0.1926	0.0943
H	<i>Hotels and restaurants</i>	I	0.0	0.5092	0.2991
		II	0.7088	0.0	0.7009
		III	0.2912	0.4908	0.0
I	<i>Transport and communication</i>	I	0.2255	0.4351	0.2349
		II	0.6507	0.3648	0.5682
		III	0.1238	0.2001	0.1969
J	<i>Financial intermediation</i>	I	0.5024	0.2313	0.1513
		II	0.4409	0.6908	0.3967
		III	0.0567	0.0779	0.4520
K	<i>Real estate, renting</i>	I	0.2616	0.5037	0.3209
		II	0.5992	0.3240	0.4727
		III	0.1392	0.1723	0.2064
L	<i>Public administration, defense and social security</i>	I	0.0	0.7401	0.2246
		II	0.9077	0.0	0.7754
		III	0.0923	0.2599	0.0
M	<i>Education</i>	I	0.0	0.7401	0.2246
		II	0.9077	0.0	0.7754

		III	0.0923	0.2599	0.0
N	Health and social work	I	0.0207	0.7719	0.3867
		II	0.8397	0.0295	0.5985
		III	0.1396	0.1986	0.0148
O	Other social services	I	0.3600	0.2722	0.2010
		II	0.4530	0.4790	0.4452
		III	0.1870	0.2480	0.3538
P	Private households with employed persons	I	0.0	0.0	0.0
		II	0.0	0.0	0.0
		III	0.0	0.0	0.0

Table 2 TRADE COEFFICIENTS

	CODE	SECTORS	REGIONS	I	II	III
1	A	Agriculture, hunting, forestry	<i>I</i>	1.1154	0.0743	0.0767
			<i>II</i>	0.1488	1.0741	0.0903
			<i>III</i>	0.0334	0.0175	1.0556
				1.2976	1.1658	1.2226
2	B	Fishing	<i>I</i>	1.1463	0.1495	0.1193
			<i>II</i>	0.2256	1.1703	0.1914
			<i>III</i>	0.0365	0.0401	1.0808
				1.4084	1.4673	1.3914
3	C	Mining and quarrying	<i>I</i>	1.1508	0.2096	0.1388
			<i>II</i>	0.2462	1.2044	0.2061
			<i>III</i>	0.0438	0.0534	1.0837
				1.4408	1.4673	1.4286
4	D	Manufacturing	<i>I</i>	1.3469	0.4896	0.2165
			<i>II</i>	0.5197	1.4666	0.2632
			<i>III</i>	0.1117	0.1191	1.1265
				1.9783	2.0753	1.6053
5	E	Electricity, gas and water supply	<i>I</i>	1.1143	0.2261	0.1969
			<i>II</i>	0.2590	1.1295	0.2022
			<i>III</i>	0.0693	0.0536	1.0569
				1.4426	1.4092	1.4560
6	F	Constructions	<i>I</i>	1.2818	0.6655	0.2239
			<i>II</i>	0.4153	1.5880	0.3382
			<i>III</i>	0.0630	0.1843	1.1464
				1.7601	2.4378	1.7085
7	G	Wholesale and Retail trade	<i>I</i>	1.1872	0.2254	0.1643
			<i>II</i>	0.3294	1.2226	0.2607
			<i>III</i>	0.0661	0.0721	1.1055
				1.5827	1.5200	1.5304
8	H	Hotels and restaurants	<i>I</i>	1.2192	0.2610	0.1899
			<i>II</i>	0.3551	1.2615	0.2885
			<i>III</i>	0.0716	0.0813	1.1192
				1.6460	1.6038	1.5976
9	I	Transport and communication	<i>I</i>	1.1231	0.1851	0.1146
			<i>II</i>	0.2209	1.1795	0.1868
			<i>III</i>	0.0430	0.0603	1.0687
				1.3870	1.4249	2.2788

10	J	<i>Financial intermediation</i>	I	1.5027	0.4152	0.3196
			II	0.6443	0.7465	0.6009
			III	0.1213	0.1476	1.3582
				2.2683	2.3093	2.2788
11	K	<i>Real estate, renting</i>	I	1.0443	0.0711	0.0480
			II	0.0849	1.0531	0.0705
			III	0.0186	0.0232	1.0209
				1.1477	1.1474	1.1394
12	L	<i>Public administration, defense and social security</i>	I	1.2494	0.3317	0.2049
			II	0.3856	1.3465	0.3071
			III	0.0626	0.0811	1.1253
				1.6976	1.7593	1.6373
13	M	<i>Education</i>	I	1.0358	0.3317	0.0410
			II	0.0650	1.3465	0.0613
			III	0.0137	0.0811	1.0238
				1.1146	1.1601	1.1260
14	N	<i>Health and social work</i>	I	1.1072	0.1553	0.0974
			II	0.1677	1.1594	0.1456
			III	0.0284	0.0387	1.0596
				1.3032	1.3533	1.3026
15	O	<i>Other social services</i>	I	1.1040	0.1121	0.0886
			II	0.1720	1.1198	0.1483
			III	0.0485	0.0545	1.0706
				1.3226	1.2865	1.3075
16	P	<i>Private households with employed persons</i>	I	1.0000	0.0000	0.0000
			II	0.0000	1.0000	0.0000
			III	0.0000	0.0000	1.0000
				1.0000	1.0000	1.0000

Table 3 REGIONALISED IMPACTS ON PRODUCTION BY REGION AND SECTOR

CODE	SECTORS	DIRECT COEFFICIENTS	DIRECT AND INDIRECT COEFFICIENT	TYPE I MULTIPLIERS
A	<i>Agriculture, hunting, forestry</i>	30.56	33.07	1.082
B	<i>Fishing</i>	24.44	26.65	1.090
C	<i>Mining and quarrying</i>	10.99	13.05	1.1874
D	<i>Manufacturing</i>	15.59	21.75	1.3951
E	<i>Electricity, gas and water supply</i>	6.04	7.57	1.2533
F	<i>Constructions</i>	14.42	18.70	1.2968
G	<i>Wholesale and Retail trade</i>	22.89	25.32	1.1061
H	<i>Hotels and restaurants</i>	19.30	22.85	1.1839
I	<i>Transport and communication</i>	13.57	15.41	1.1356
J	<i>Financial intermediation</i>	2.73	5.42	1.9856
K	<i>Real estate, renting</i>	4.88	5.56	1.1393
L	<i>Public administration, defense and social security</i>	22.27	26.12	1.1729
M	<i>Education</i>	34.05	34.52	1.014
N	<i>Health and social work</i>	17.05	18.70	1.0967

<i>O</i>	<i>Other social services</i>	<i>28.41</i>	<i>30.35</i>	<i>1.0683</i>
<i>P</i>	<i>Private households with employed persons</i>	<i>37.55</i>	<i>37.55</i>	<i>1.000</i>

Table 4 IMPACT ON EMPLOYMENT, REGION I

CODE	SECTORS	DIRECT COEFFICIENTS	DIRECT AND INDIRECT COEFFICIENT	TYPE I MULTIPLIERS
A	<i>Agriculture, hunting, forestry</i>	29.85	30.98	1.0387
B	<i>Fishing</i>	27.82	30.41	1.0931
C	<i>Mining and quarrying</i>	13.20	15.92	1.2060
D	<i>Manufacturing</i>	12.74	20.20	1.5855
E	<i>Electricity, gas and water supply</i>	10.78	12.55	1.1642
F	<i>Constructions</i>	16.25	25.10	1.5446
G	<i>Wholesale and Retail trade</i>	23.21	26.22	1.1296
H	<i>Hotels and restaurants</i>	15.05	19.04	1.2651
I	<i>Transport and communication</i>	17.88	20.55	1.1493
J	<i>Financial intermediation</i>	3.81	8.34	2.1889
K	<i>Real estate, renting</i>	9.37	10.12	1.0800
L	<i>Public administration, defense and social security</i>	16.31	21.17	1.2979
M	<i>Education</i>	47.46	48.34	1.0185
N	<i>Health and social work</i>	26.14	28.40	1.0864
O	<i>Other social services</i>	28.00	30.30	1.0821
P	<i>Private households with employed persons</i>	35.56	35.56	1.0000

Table 5 IMPACT ON EMPLOYMENT, REGION II

CODE	SECTORS	DIRECT COEFFICIENTS	DIRECT AND INDIRECT COEFFICIENT	TYPE I MULTIPLIERS
A	<i>Agriculture, hunting, forestry</i>	28.65	29.97	1.0460
B	<i>Fishing</i>	24.16	25.52	1.0563
C	<i>Mining and quarrying</i>	9.83	11.06	1.1251
D	<i>Manufacturing</i>	20.94	23.44	1.1194
E	<i>Electricity, gas and water supply</i>	7.94	8.75	1.1020
F	<i>Constructions</i>	17.90	20.49	1.1447
G	<i>Wholesale and Retail trade</i>	21.51	22.78	1.0590
H	<i>Hotels and restaurants</i>	15.06	17.06	1.1328
I	<i>Transport and communication</i>	11.26	12.28	1.0906
J	<i>Financial intermediation</i>	2.82	4.39	1.5567
K	<i>Real estate, renting</i>	3.48	3.75	1.0775
L	<i>Public administration, defense and social security</i>	20.64	22.85	1.1070
M	<i>Education</i>	30.27	30.55	1.0092
N	<i>Health and social work</i>	17.52	18.54	1.0582
O	<i>Other social services</i>	9.53	10.31	1.0818
P	<i>Private households with employed persons</i>	0.60	0.60	1.000

Table 6 IMPACT ON EMPLOYMENT, REGION III

CONCLUSIONS

The estimation of interregional input – output tables with greater regional specification can proportionate many benefits to regional studies. In this way, the present work proposes and evaluates a method to accomplish this task.

The contribution of the interregional input - output model is that provides the best framework for statistically articulating a static general equilibrium model of interconnected regional structures. Its most useful role is in predicting comparative multiplier results from changes in exogenous data.

The interregional model presented, indicate what is apparently the first for the regionalised Greek economy. In addition the most important contribution in the field in the estimating procedures is the use of regional technical interindustry coefficients.

So, the analysis was conducted to obtain estimates of the impacts upon employment and production, using interregional input – output matrix.

This kind of analysis was helpful in order to achieve the results.

1. Reliable estimates of trade flows and regional trade coefficients were obtained.
2. The sectors that are mainly responsible for growth of overall output and GDP, in the regions, were determined.

With respect to regional production structure a relative homogeneity between regions was indicated.

Finally the intraregional production multiplier effects of activity were greater than the interregional effects.

3. As regards the employment effect is observed the same sectors when the impacts upon employment level is evaluated. The results therefore showed the same sectors generated a great number of jobs, as in the case of production. The major limitation of input – output analysis is the assumption of constant technical coefficients. Technological advances and relative price change bring about substitution of inputs, causing the technical coefficients to change overtime. Because of this, the model lose the accuracy overtime.

The policy implications of these regions must be further investigated, given the practical concern and importance of the regional policy in the context of regional analysis.

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WHAT MAKES PIEDMONT CATCHING UP?

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Purpose— The purpose of this paper is to create a composite provincial index which, via macro categories of factors, reflects the weight of competitive drivers for each Piedmont province and allows to rank them according to their level of competitiveness, expressing their contribution to regional performances.

Design/methodology/approach—The individuation of drivers and measures of local competitiveness are examined basing on the existing literature and throughout three different focus groups involving 30 local stakeholders of different origin (Builders of competitive indices, Bodies, Academics and Entrepreneurs) (Delphi methodology) while the index was then applied to Piedmont interrogating provincial databases.

Findings—The research findings show how regional performances depend on a few highly-competitive provinces able to train - throughout their good results- less performing ones. Furthermore, this paper highlights how competitiveness of a province is mostly based on immaterial drivers and may be modified with no change in the factors that describe that province but only with changes in factors of other provinces.

Research limitations/implications—Main limits of this research involve the level of exhaustiveness of drivers and relative indices, chosen throughout subjective (and not objective) criteria. The paper offers scope for further research into the application, with some small adjustments, of this provincial index to other province and, after some more adaptations, also to district and urban levels.

Originality/value—The paper contributes to the literature on “provincial/regional competitiveness measure” not limiting to supply a measure but also explaining how provincial performances and characteristics can contribute to regional competitiveness and outlining relative strategies.

Keywords: Regional competitiveness, Delphi methodology, Provincial Competitiveness Index, Local Strategies.

Article Type: Research paper

INTRODUCTION AND METHODOLOGY

The global importance of the concept of territorial competitiveness has increased rapidly in recent years. Most papers try to answer two important questions: “*How to define competitiveness and which indicators measure it?*” and “*How can competitiveness be improved?*”. In this paragraph we try to supply a definition of local competitiveness while a more exhaustive literature on drivers of regional/provincial competitiveness will be introduced in paragraph 3.

There are numerous attempts to define regional competitiveness. The European Union (EC, 1999) defines it as “*the ability of companies, industries, regions, nations and supra-national regions to generate relatively high incomes and employment levels*”.

Very similar is the concept expressed by the Second Cohesion Report of the EU (EC, 2001):

“...*(it) has begun to emerge, which relates to the achievement of high and rising standards of living and high rates of employment on sustainable basis*”.

A very common definition is provided by Storper (Storper, 1997), who defines regional competitiveness as “*the capability of a sub-national economy to attract and maintain firms with stable or rising market shares in an activity while maintaining stable or increasing standards of living for those who participate in it*”.

One of the most important phases in strategic planning consists of measuring present competitive position and potential of a region (Snieska and Burneckiene, 2009). Despite the increasing number of papers on regional competitiveness issues, the research concerning measure and indices or regional competitiveness are still a few and,

when existing, they are built especially for developing areas, which show different characteristics if compared to regions of Western Europe.

Furthermore, even more rare are studies on measure of regional performance that reflect the contribution of single provinces to determinate its competitiveness.

In particular, the lack of a model of complex measure of competitiveness is becoming one of the obstacles which prevents from measuring the competitive potential of a region and assessing how to increase competitiveness.

The aim of this paper is to analyze main problems affecting regional and provincial competitiveness and to supply a method of analysis of Piedmont competitiveness able to reflect different levels of performances of each province. Consequently the objective of this research is not to determine the exact level of competitiveness of Piedmont but to understand which its provincial forces and weaknesses are.

The methodology used in this paper consists both of a systematic and comparative analysis of the concepts and methodologies published in literature and of testing these results by means of three focus groups (the first for the determination of drivers and indices, the second for the repartition of scores among indices and the last for individuating paths of action) composed by 30 Piedmont stakeholders of different origin (Builders of competitive indices, Bodies, Academics and Entrepreneurs). They allow us to validate the framework of provincial drivers affecting regional competitiveness found in literature and to build a global provincial index, consisting of a weighting index provided with 7 partial indices (Financial, Economic, Innovation, Environmental, Demographic, Labour Market and Physic Indices); while each index reflects the importance of the group of sub-indices on regional performances for each province, the global provincial competitiveness index (equal to the sum of the 7 partial indices) ranges from 1 to 100: the higher the score, the better the competitive performances. This paper is structured in five main parts:

- main problems in measuring local competitiveness;
- individuation of sources and relative indices of provincial competitiveness;
- the analysis of provincial drivers and measure of Piedmont performances and the identification of a sort of benchmarking among provinces with reference to single groups of drivers;
- the building of a global provincial ranking and the definition of paths of action to further increase the regional level of competitiveness;
- conclusions, limits and possibility of application of the model.

PROBLEMS IN MEASURING LOCAL COMPETITIVENESS

An analysis of different problems affecting local competitiveness measurement shows how it cannot be completely defined by one or more economic and social competitiveness (Kitson *et al.*, 2004; Huggins, 2003).

In particular, many regional/provincial competitiveness indices have been created, with different composition:

- *DTI's business competitive indicators*, including business formation and survival rates, employment levels, GVA and employee in manufacturing, average earnings and GDP;
- *The World Knowledge Competitiveness Index*, which seeks to benchmark the globe's regions leader in knowledge-based economy and a European Competitiveness Index which covers regions both within the UK as well as Europe and reveals a major competitiveness gap between the best and poorest performing regions;

- A group of indices dealing with particular aspects of competitiveness that don't develop a single composite index but include Massachusetts Technology Collaborative's, Index of Massachusetts Innovation Economy and the OECD's (1999), Science, Technology and Industrial Scoreboard: Benchmarking-Knowledge-based Economies;
- A system of evaluation and monitoring of a large set of quantitative variables is designed in the *Community Support Framework (CSF) 2000-2006* for Southern Italian Regions as a fundamental instrument to plan, select projects and monitor the impact of the interventions;
- *Regional Attractiveness Index* developed by Price Waterhouse Coopers in 2001 for Rumanian regions, using socio-economic indices;
- *The WEF (World Economic Forum) (1999)*, a composite competitiveness index that represents an attempt to establish an appropriate weighting for sub-indices;
- *The Regional Competitiveness Index Croatia, (2007)*, based on 176 indicators derived from statistical and survey data, which enables a more comprehensive comparison of regions;
- *UK competitiveness Index, (2003)*, an index reflecting 3 factor models consisting of a framework of competitiveness based on inputs, outputs and outcomes;
- *Creativity index*, a proxy for an area's openness to different kinds of people and ideas, built by Richard Florida;
- *The competitiveness Index for Turkish Regions, (2009)*, which measures regional and provincial competitiveness through different socio-economical factors;
- *The Regional competitiveness framework in Hungary, (2006)*, a set of indices aiming at measuring Hungarian sub-regions alongside development phase.

These important attempts to measure local competitiveness lack completeness, do not supply a global vision in constructing provincial index but, most of all, they do not reflect the contribution of a single province to regional level of competitiveness.

SOURCES AND INDICES OF PROVINCIAL COMPETITIVENESS

Provincial competitiveness is affected by several components of different nature and it cannot be reduced to a single factor, regardless how many papers try to do it. After Porter's contribution in 1990, more and more experts have dealt with local competitiveness and examined its factors (Viassone, 2008; Lukovics and Lengyel, 2006; Bud-Hirmis, 2004; Gardiner *et al.*, 2004; Huggins, 2003; Camagni, 2002; Malecki, 2002; Huovari, 2001). This study starts with seven different categories of indices coming from literature and validated by Piedmont stakeholders and arrives at a final one expressing the weight of each province in the Piedmont context. The seven-factor model of provincial competitiveness consists of a framework of competitiveness based on:

Economic factors - The competitiveness of a province, i.e. its ability in competing on international markets, is determined by its trade performance, the activities of foreign-owned affiliates and the investments of its MNEs overseas. Therefore it is important to argue that local competitiveness occurs only when a territory owns a critical stock of firms that are able to generate new entrepreneurs and innovations in developing sectors and markets and, in addition, new jobs. Porter already argued that business density has an important role only since firm concentration and competitive performance are related (Porter, 2003; 1990).

Financial factors - Starting from the fact that competitiveness is intimately bound up with successful economic development and with reference to the definition previously given by EC (1999), we can remember how "relatively high income" could be measured by means of GDP and VA pro capita (Lengyel, 2004). GDP is often

considered the most important measure of economic activity of a province, indicating the historical impact of competitiveness (Huggins, 2003). Furthermore in today's new economy the credit market has an important place and its analysis involves the equipment of banking branches which is positive related to the growth rates of real variables (King and Levine, 1993) and must be suitable to the needs of a territory (Low, 2005).

Social factors - Population of a particular territory is one of the main variables of local development. The demographic profile of a region is usually seen as a slowly-changing background phenomenon in the analysis of regional competitiveness and regional growth. However, provincial demographic change may have a significant impact on its competitiveness and such a change is often more rapid and profound than at the national level. In turn, provincial/regional population size, growth, composition and distribution are endogenous to regional economic development (Poot, 2007).

Labour factors - It is a common opinion among business researchers that local competitiveness occurs only when sustainable growth is achieved at labour rates that enhance overall standards of living (Huggins, 2003). In order to be competitive a region must be able to ensure both quantity and quality of employment. Labour factors and employment rates also play an important role in determining a province's overall living standards. The HM Treasury asserted that differences in regional/provincial income levels are a function of variations in regional/provincial employment rate.

Innovation factors - The great importance of innovation-based competition (Andersen, 2006) was already stressed by Schumpeter in 1930s and 40s: he maintained that innovation results in qualitatively new products, processes, markets, inputs or organizational forms, which lead to a process of "creative destruction" whereby the old is displaced by the new. According to Perroux (1970), innovation well-executed by certain agents serves as a valuable example for others and gives rise to imitations, which are themselves creative (Alexiadis and Tsagdis's work, 2005; Perroux, 1970). The necessary ideas for innovation are embodied in individuals with creativity, know-how and skills to engage in technological advance (Knudsen *et al.*, 2008), real driving forces force in regional economic growth and prosperity (Florida, 2002; Vrontis, 2001).

Environmental factors - Environmental processes and parameters - the so-called 'success determinants' with an indirect, long-term impact on competitiveness (Jensen-Butler, 1999)- are also taken into account.

Physical factors - Initiatives concerning the building up of infrastructures and social overhead capital are important tools for local development (Gosso, 2005). Local infrastructures influence in a sensible way the competitive capacity of the territory and the firms settled on it; they are not replaceable by other forms of capital, so their localization and quality determine their potential of development. Literature on competitiveness of modern productive systems agrees on the even higher importance of the level and diffusion of infrastructures (Rohm *et al.*, 2004). In the new competitive context the simple framework of infrastructures continues to play a very important role but they assume a different relevance depending on whether they are connected with immaterial factors (i.e. the offer of adding services, the baggage of local knowledge).

Table 1 shows the framework of economic, financial, social, labour, innovation, physical and environmental indices obtained from both the review of literature and opinions of provincial stakeholders. The group of local stakeholders evaluated, out of 100 scores, the repartition weighting of each of the drivers basing themselves on their personal experience, allowing us to calculate the average weight for each driver. Given that their sum must correspond to 100, we got the personal contribution of each driver to the level of regional competitiveness. Then, the total score assigned to each driver needs to be shared by interviewees among each single sub-driver. So, using SPSS, the original variables (our sub-drivers) are segmented in 4 classes that contain the same part of population (25%). In this way it is assigned a different weight and different scores to the sub-drivers according to whether their value belongs to class 1, 2, 3 or 4 (the major number of scores is assigned to class 4). By summing single sub-indices (Table 2) for each province, we obtain 7 partial indices (min = least competitive province in that particular

factor; max = most competitive province in that particular factor), and a global indicator (i.e. the sum of the 7 indices), which varies between 0 and 100 (0 - least attractive province; 100 - most attractive province).

<i>Indices</i>	<i>Scores</i>	<i>Driver</i>	<i>Scores</i>
Economic Index	25	Financial Index	15
Entrepreneurship	10	Financial factors	10
- Total number of firms - Female firms (%) - Cooperative societies - Immigrants' firms		- Total Value Add - GDP per capita	
Foreign affairs	5	Banking factors	5
- Imports - Exports		- Investments/counters - Deposits/counters - N.of banks - N. of counters	
Sectorial composition	10	Index of Innovation	20
- Firms in agriculture - Firms in manufacture - Building firms - Commercial firms - Transport firms - Services firms - Touristic firms N. of accomodations N. of beds N. of foreign travellers Foreigners' Expenditure Travellers presences in accomodations		- Deposits of innovations - Brand deposits - Patents - R&D firms - N. of participation at projects - Firms participating to events	
Demographic Index	10	Environmental Index	7
-population -%foreigner population out of total population		- N. of implants alimented by renewable sources - separate refuse collection	
Physical Factors	8	Labour Index	15
- Road network - Railways network - Airport - Health structures - Energy network - Telephonic network		- Total Labour forces - Activity rate - Employment rate - Employees in agriculture - Employees in industry - Employees in services	

Table 1. Indices and sub-indices of provincial competitiveness. Source: personal elaboration

PIEDMONT PERFORMANCES: AN 8-PROVINCE COMPARISON

Piedmont is constituted of 8 provinces with very different characteristics. Throughout the methodology over explained, in this paragraph we try to calculate a single index for each of the 7 categories of factors affecting their level of competitiveness individuating their contribution to high performance of Piedmont.

Economic index

The first sub-index is related to economic factors, which are usually taken as the first sign of competitiveness. This index shows at the top of the list Turin - with its well-known industrial reputation and home of [FIAT](#) automobile group - followed by Cuneo with 74.836 firms, 33% of which with agricultural nature. Alessandria, Novara and Vercelli place themselves at the same position both with reference to import and export data, but the first two present a more favorable entrepreneurial situation. Finally, Asti, Biella and Verbania cover the lowest investments, the first with a prevalent agricultural nature contrary to the commercial one typical of the latter two provinces.

	<i>Economic Index</i> (msa[*]=25)	<i>Financial Index</i> (msa=15)	<i>Index of Innovation</i> (msa=20)	<i>Environmental Index</i> (msa=7)	<i>Demographic Index</i> (msa=10)	<i>Labour Market Index</i> (msa=15)	<i>Physical Index</i> (msa=8)
AL	10	5	5	1,75	5	3,75	8
AT	7,5	3,75	5	1,75	6,25	5,25	4
BI	8,75	5	5	1,75	2,5	6	2
CN	15	6,25	10	7	5	6	2
NO	10	6,25	5	3,5	5	5,25	8
TO	25	15	20	7	8,75	14,25	6
VB	6,25	5	5	5,25	2,5	5,25	2
VC	10	3,75	5	1,75	3,75	4,5	4

Table 2. Values assigned at provincial level for each single index. Source: personal elaboration on UnionCamere data, 2008

Financial index

With reference to financial indices we can notice how the geographical distribution of banking headquarters is not very homogeneous with a concentration of them on the provinces of Cuneo (41,94%) and Turin (35,48%) and an absence of them in the province of Vercelli. The lowest value of investments and deposits is for the province of Verbania. Cuneo predominates also when referring to GDP pro capita (30414,4), followed by Novara (29354,2) and Turin (29223,3); Turin is at the first position with reference to Value Add; Alessandria covers the fifth position par GDP and the third par value add. Asti shows low data with reference to every financial factors.

Index of innovation

The index of innovation shows a repartition of Piedmont in three parts: Turin comes at the top of the classification with the 65% of regional patents and 50% of regional brands and Cuneo follows it after a considerable gap. The totality of remaining provinces takes the lowest rank in this index.

Environmental factors

Environmental policies cover a prior importance in the main strategic political, social and economical choices, both referring to safeguard of our planet and the quality of life of present and future generations. With reference to these topics the most careful provinces are Cuneo and Turin, also if the primate for the separate refuse collection is held by the province of Novara, while Turin has the highest number of implants alimeted by renewable sources, closely followed by the province of Cuneo.

*msa= maximum scores assigned

Demographic index

Demographic factors and their trends interact each another creating complex relationships which must be suitably considered in the current socio-economical context. Turin covers the first position, with a very high density that has its roots in a fairly complex historic context (its influence in the period from its proclamation as capital of Italy to the beginning of '900 and the intense increase of the density of population in 1899, year of foundation of FIAT). This index presents high values in the province of Asti (8,41%) and Alessandria (7,38%), while the lowest presence of foreigners is registered in the provinces of Verbania (7379) and Biella (9341).

Labour market index

The labour market index complements in many ways the economic one. As an indicator of the labour market flexibility and efficiency, it is a key to analyze sub-regional employment and activity level. Turin is at the top of the list while Alessandria comes last. In particular we can underline how Turin shows the highest value of labour force (1.030.000) and total number of employees (972.000) while Cuneo has the primate with reference both to the activity (71,4%) and employment rate (68,9%). A "middle" position is covered by Asti, Novara and Verbania while Vercelli and Alessandria have very low level.

Physical index

The importance of physical infrastructures is undisputable for economic growth. The physical index does not consecrate Turin in the first position because of its unsuitable railways network. Alessandria and Novara are at the top of the classification thanks to their roadways, railways and energetic network. It is to notice the lowest position of the province of Cuneo, in particular in the energetic and telephonic networks.

A GLOBAL PROVINCIAL COMPETITIVENESS INDEX

After this particular description of single provincial indices, we summed them getting a global provincial competitiveness index (GPCI) and a regional competitiveness ranking (Table 3). In order to better understand its composition, each single indicator can be split into the scores assigned to their sub-indices. Finally the global index can be computed in the following way:

$$(1) \quad \text{GPCI scores} = [\text{ECI scores} + \text{FI scores} + \text{II scores} + \text{EI scores} + \text{SI scores} + \text{LI scores} + \text{PI scores}]$$

Where:

ECI= Economic Index;

FI = Financial Index;

II = Index of Innovation

EI = Environmental Index

SI = Social Index

LI = Labour market Index

PI = Physical Index

In a second round, we organize the eight provinces in 5 groups according to their level of competitiveness (GPCI) (0-20= the lowest class; 81-100 scores: the highest class) (Table 4). It is curious to notice two important aspects:

- provinces in the same class have often very different characteristics;

- the (relative) competitiveness of a province may be modified with no change of the factors describing that province, but only with changes in other provinces factors.

Furthermore, it is important to notice that none of the 8 provinces is included in the “High competitiveness” and “Low competitiveness” classes.

Rank	Provinces	Max Scores assignable	Scores assigned
1	TO	100	96
2	CN		51,25
3	NO		43
4	AL		38,5
5	AT		33,50
6	VC		32,75
7	VB		31,25
8	BI		31

Table 3. Global provincial competitiveness index Source: personal elaboration

Scores	Level of competitiveness
0-20	Low
21-40	Moderate
42-60	Quite high
61-80	High
81-100	Very high

Table 4. Levels of competitiveness. Source: personal elaboration

Province with a very high competitiveness

Turin

Turin's economy, with 235.912 registered firms in 2008 (3,9% of the Italian datum) (at the fourth position only after Rome, Milan and Naples), is based prevalently on commercial and service sector. Despite its industrial nature, it shows a very high environmental index, with the highest number of implants alimented by renewable energy (80) and a quota of separate refuse collection by 45,9%. A great strength of Turin is represented by foreign trade, with an import which represents 53,3% of the regional total and an export corresponding to 49,8% of the regional datum. It also boasts a strong superiority in innovation, supported by an excellent physical and financial capital (with a value add by 17184,9 millions of euros, a GDP per capita higher than the regional average value and a high ratio deposits and investments out of counters). The only weak points are the social and – partially - the labour market indices (with an employment rate (64,7%) even lower than the regional average one (65,2%)).

Provinces with a quite high competitiveness

Cuneo

The province of Cuneo is strongly characterized by the presence of agricultural enterprises. Very positive is the datum referring to the territorial female firms' density, with 6 firms every 100 women. Foreign trade represents a relevant element for provincial economies with the most of exports coming from food and drinks (26,2% of the provincial exports) and imports heavily affected by agricultural goods. It covers the second position at provincial level with reference to the value add and the first with the reference to GDP per capita (30.414,4 euros, which sets it at the seventieth place in the national ranking). It shows a large number of banking counters (511) but they are not homogeneously spread, with the total absence of them in many mountain towns. Labour market represents a point of force of this province, with an employment rate that gives Cuneo the eighth position at national level. It is also an innovative province, with a number of registered brands of 290 (10 brands par 1000 firms) and it is also very careful as for environmental aspects (Tardivo, 2008): it owns one third of regional implants alimented by renewable sources and in 2008 it registers a major propensity for separate refuse collection (40,9%) if compared with 2007 (37,8%). The only two points of weakness are its ageing population (100 young people par 163 ageing people) and its performances in infrastructural network, much lower than regional data.

Novara

Novara has its points of force in a strong network of infrastructures, that places it at the top of the classification both with reference to railways (with Alessandria and Asti) and to roadways (with Vercelli and Alessandria) and in energetic and banking networks. With reference to economic situation, in 2008 both its imports and exports decreased. The first, involving mainly mechanical (48% of provincial exports), chemical, rubber and plastic (30,8%) and fashion sector (12,3%), are prevalently destined to EU. With reference to entrepreneurship, it gets good performances, registering the major increase. Novara distinguishes itself for the value add created by industrial sector (32,9% of the total value add) and it holds the second position par GDP. Furthermore it presents one of the major values in investments/counters and deposits/counters ratios and excels in the separate refuse collection (61,1%) but it has a low number of implants alimented by renewable sources. It is in a middle position with reference to activity and employment rate and labour conditions.

Province with a moderate competitiveness

Alessandria

Alessandria's economy is based on agriculture and commerce and the comparison with other provinces sets it at the fourth place both for imports and for exports, after Turin, Cuneo and Novara. Four sectors characterize its export: food, chemical, mechanical and fashion and one in particular that of imports (mechanic: 68,4%). It has a high value add (10.602,3 millions of euros), prevalently created by services (67,8%) and it is the second province for number of patents (56) (after Turin); its real point of force is the physical index, which gives it the top of the classification in any kind of infrastructure. It shows one of the regional highest incidence of foreigner population out of the total (7,38%), second only to the province of Asti. The only two weak points are environment (with a low number of implants alimented by renewable sources and an also lower quota of separate refuse collection) and labour market (with the lowest value with reference to the activity (65%) and employment rate (61,8%)).

Asti

This province presents several points of weakness with reference to economic, financial and environmental indices. In fact it counts only 26.312 enterprises, the most of which based on agriculture (8.531) and very low values with reference to imports (965.228.222) and exports (1.300.609.026). In addition it presents one of the lowest regional GDP per capita (25.170,8), higher only than the province of Verbania. The same situation is shown in the credit sector, with a scarce efficiency of counters. Not so positive is the environmental situation of the province where it is registered the total absence of implants alimanted by renewable sources but a quite high quota of separate refuse collection (50,7%). It is placed in a "middle" position with reference to innovation, social, labour and physical indices, with a point of excellence in railways network, quite good values concerning activity (69,8%) and employment rate (66,8%) and very low datum concerning innovations (22).

Verbania, Vercelli and Biella

are at the bottom of the classification. In particular, the first shows the lowest values in economic and social field (the lowest population (162.333) and percentage of foreigners (4,55%)). The only very good result is reached for the environmental index thanks to the number of hydraulic implants alimanted by renewable sources (39) and to the high percentage of separate refuse collection (55,5%), besides the creation of a pole of innovation for renewable energies on Lago Maggiore.

Vercelli is not in a very positive competitive situation with very low values in financial, innovation, environmental and physic indices. It presents a value add by 4492,3 (millions of Euros) prevalently based on services (64,2%) and a scarce attention to environment (the separate refuse collection covers only 25,5%). Also social, labour and physical indices do not register good performances: Vercelli shows an activity rate lower than the regional one by 2 percentage points and one of the less numerous population (second only to the province of Verbania). Finally, Biella closes the classification and results the province with the worst competitive performances, apart for labour market where it has one of the highest regional activity (71,1%) and employment rate (67,6%).

Figure 1 shows important suggestions for Bodies supplied by territorial stakeholders during the third focus group.

<i>Provinces</i>	<i>Paths of action</i>
TO	<p><i>Development of transport infrastructures (Lisbona-Kiev and Genoa-Rotterdam).</i></p> <p><i>Increase in relationships among Centres of research, University and firms</i></p> <p><i>Promotion of growth and valorisation of Turin's excellences (design, food and drink)</i></p> <p><i>Make Turin an international educational centre</i></p> <p><i>Support entrepreneurship start-up</i></p> <p><i>Valorisation of human capital</i></p> <p><i>Improve relationships among banks, enterprises, assurances</i></p> <p><i>Major attention to energetic and environmental subjects</i></p>
CN	<p><i>Need of a dimensional growth of enterprises</i></p> <p><i>Promotion and investments in R&D</i></p> <p><i>A major support at the commercial internationalisation</i></p> <p><i>Major investment and better organisation of infrastructures (railways "Asti-Cuneo", doubling of the tunnel of Tenda)</i></p> <p><i>Improvement in the road Cuneo-Maddalena's pass, roadways link towards Liguria and in the railways towards Fossano-Torino, service infrastructure for Levaldigi airport, ICT networks</i></p>
NO	<p><i>Develop knowledge and to sensitize the migratory phenomenon, promoting integration of foreigners.</i></p> <p><i>Creation of service of cultural mediation</i></p> <p><i>Major valorisation of environmental context</i></p> <p><i>Activation of networks among Bodies and Public Institutions</i></p> <p><i>Institution of an environmental education</i></p> <p><i>Protection of waters</i></p>
AL	<p><i>Specific measures of integration for immigrants and support at voluntary associations.</i></p> <p><i>Development of policies for young people</i></p> <p><i>Programs of environmental education</i></p> <p><i>Protection of intellectual property</i></p> <p><i>Policies at support of employment</i></p> <p><i>Development of food districts of quality</i></p> <p><i>Participation at the landscape regional plan to get the classification of "UNESCO site"</i></p>
AT	<p><i>Make Asti a province with an education and a culture of excellence</i></p> <p><i>Creation of a consortium to promote research, innovation and technological transfer</i></p> <p><i>Valorisation of productive areas (PIP)</i></p> <p><i>Creation of a network of relationships facilitating the access to international financial programs</i></p> <p><i>Creation of a brand distinguishing Asti's touristic initiatives</i></p> <p><i>Financial incentives to built photovoltaic and solar energy implants</i></p> <p><i>Strengthening of urban lines</i></p>
BI	<p><i>Programs of development of cultural, natural and sportive tourism.</i></p> <p><i>Safeguard of agricultural landscapes of cultural interest</i></p> <p><i>Programs of support of agriculture</i></p> <p><i>Creation of photovoltaic implants on the roofs of the schools</i></p> <p><i>Creation of a network of international relationships (in technologic, cultural and creative fields)</i></p> <p><i>Favour the contact between firms and young talents</i></p> <p><i>Valorisation of tourism</i></p>
VC	<p><i>Project of a supportable tourism</i></p> <p><i>Major integration among University, society and territory</i></p> <p><i>Promotion of a "district of rise of quality".</i></p> <p><i>Safeguard of landscape</i></p> <p><i>Valorisation of the area of "Valle Dora"</i></p> <p><i>Policies of urban development</i></p>
VB	<p><i>Promotion of sectorial studies on the development of renewable energies</i></p> <p><i>Financial policies at support of local firms</i></p>

<i>Qualification and development of excellences</i> <i>Strengthening of external economies</i> <i>Development of high tech sector</i> <i>Policies for the birth of firms</i> <i>Requalification of human resources</i> <i>Territorial and social cohesion</i>
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Figure 1. Suggestions for Piedmont provinces Source: personal elaboration

CONCLUSIONS

Looking at the different tables and sub-indices we can notice that:

- provincial and regional competitiveness cannot be totally defined by one or a few economic social indicators and almost the total of sources of local competitiveness has an immaterial nature;
- the paper proved that the measurement by a global index of provincial competitiveness solves the problem of a complex measurement of local competitiveness;
- GPCI allows to measure provincial competitiveness in a single value (also if reflecting the contribution of each single driver) and to compare provinces one with another;
- GPCI allows an analysis of provincial competitiveness, according to groups of competitive drivers;
- the ranking of the provinces in different sub-indices largely differ;
- GPCI is an important tool to suggest paths of action to provincial/regional Bodies;
- the application of GPCI to Piedmont provinces showed how regional competitiveness is based on good results of three provinces able to train the regional competitiveness: Turin, Cuneo and Novara.

This index shows also several limits, in particular with reference to exhaustiveness of sub-indices, chosen according to criteria of accessibility, relevance and transferability; in addition the set of drivers and indices has been chosen throughout subjective and not objective criteria.

GPCI actually supplies a picture of provinces in terms of competitiveness capacity; from now on, we could track changes in competitiveness drivers with subsequent studies and apply it to different levels of analysis (i.e. urban level).

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LAYOUT AND AESTHETICS OF SELECTED SOUTH AFRICAN CASINOS

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This South African based research focuses on the gamers' perceptions of the layout, accessibility and aesthetics of the gaming areas of four selected Sun International casinos. The purpose of this research is to provide relevant information to casino managers on how gamers perceive the layout, accessibility and aesthetics of the servicescape. Four hundred and forty gamers at four selected casinos were interviewed in order to obtain a synopsis of the target population. A focus group discussion was held to assist the authors in constructing the questionnaire. Fieldworkers used a structured questionnaire to collect the final data for the research. All variables related to the questionnaire were statistically analysed. The results of this study indicated that no significant differences exist between male and female gamers in the way they perceived the layout, accessibility and aesthetics of the gaming areas. This research assists the management of the Sun International group in identifying new opportunities in order to grow and expand in a competitive environment. Key words: Casino, Servicescape, gamers, layout, aesthetics,

INTRODUCTION

As the previous South African government did not allowed casino gambling within its borders, the South African hotel magnate Sol Kerzner opened the first luxury casino in December 1979, namely Sun City, located in the North West Province of South Africa. This was by then the semi-independent state of Bophuthatswana which is currently still one of the most popular destinations in South Africa (Gauteng Happenings, 2009:1).

The Sun City casino forms part of the Sun International group and was placed on the international map by hosting the million-dollar golf tournament that is still running (Wiesenberg, 2005:156). Currently, there are 34 legal casinos in all nine provinces of South Africa. The Sun International group is the largest license-holder in the South-African casino industry, with 13 casinos nation wide.

According to the Casino Association of South Africa (2007:3), casinos in South Africa have extensively funded public infrastructure, tourism, such as convention centres and more than 5000 hotel beds. The South African casino industry is still young in relation to international casino standards and local research is still in its formative years (Casino Association of South Africa, 2007:1).

According to Wikipedia (2007:1), a casino is a facility that offers different types of gambling activities and is placed near major attractions in a city such as hotels and shopping centres. The gaming area of a casino, also known as the servicescape, is the place where gaming activities take place. A servicescape, according to Bitner (1992:57), is where the service is generally produced simultaneously; the consumer is in the facility experiencing the total service delivery. French (2006:18) believes that every single aspect of a casino: the location, the décor, the choice of games, the layout, and the staff is designed for one purpose only, to part customers from their money. According to the Casino Association of South Africa, all casinos applying for a new casino licence must present a detailed floor plan of the gaming area to the South African casino board. The casino board then decides if the applicant's floor plan complies with the regulations set by the casino board. Blackwood (2006:27) states that when visitors enter a casino they may find themselves in the lobby or foyer of the casino. Familiar sights like the helpdesk will help the visitors find their way to the different games that the casino offers. The gamers can choose between table games and slot machines for entertainment. Casino employees all have one goal in common: to provide the visitor with opportunities to try their luck against the uneven odds of the casino.

A structured questionnaire was used to collect the final data for this the research on which this article is reporting. The aim of this research is provide Sun International casino management as well as other casinos with

a better understanding on how gamers perceive the casino layout, its accessibility and aesthetics. By understanding the gamers' perceptions, management can implement the findings of this research in their future planning strategies. The question can be asked, 'What remedial actions if any, should be deployed by management within the gaming area of a casino that would improve the gamers' perceptions regarding the casino layout, accessibility and aesthetics?' To answer this question the authors determined the perceptions of gamers with regard to the casino layout, accessibility and aesthetics of the gaming areas of four selected South African casinos. In the following section relevant literature to the research will be discussed.

LITERATURE REVIEW

A **servicescape** according to Palmer (2001:70) is the environment in which the service is assembled and in which the seller and customer interact, combined with tangible commodities that facilitate the performance or communication of the service. Nankervis (2005:227) states that the term **servicescape** describes the physical and psychological design of service layouts. The service delivery environment, and that the efficient operation of a business has significant implications for the design of the physical layout, or setting of the business. Bitner (1992:57-71), as cited by Wakefield and Blodgen, (1996:45) refers to the physical settings in an organisation as the **servicescape**. This includes the environmental dimensions, holistic environment, internal responses and behaviour of the occupants in the area. The casino has a physical setting where the slot machines and tables are installed for gaming, and this is also referred to as the gaming area. The operational factors that influence the servicescape will be discussed next.

Operational factors that influence the servicescape

The casino floor plan

The floor plan of South African casinos is basically the same as those in other countries. Blackwood (2006:27) researched and found that most casinos in the world are laid out on a similar floor plan. The aesthetic and functional characteristics one finds at mega casinos can also be found at smaller casinos. Blackwood (2006:27) states that casino owners have intimate knowledge of the gamers' mind, the interior design, and the layout of a casino that will lead to impulse gaming. Russell and Taylor (2006:271) identified four types of services layouts. Firstly, **free flow layouts** encourage browsing, increase impulsive use or purchasing and are flexible and visually appealing. Secondly, **grid layouts** encourage customer familiarity and are low cost, easy to clean and good for repeat customers.

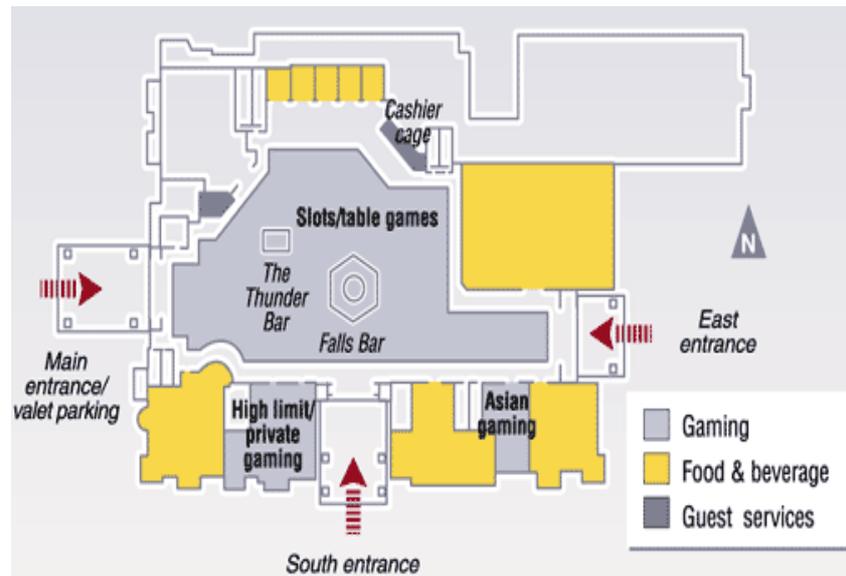


Figure I. The casino floor plan Source: The Pennsylvania code (2007:1)

The service environment has a strong impact on the customers' perceptions of the service experience. Before entering the service facility, consumers commonly look for clues about the firm's capabilities and quality. Since services are so intangible, the physical environment outside and inside is very influential in communicating an image and in shaping gamers' expectations, (Van Looy, Gemmel and van Dierdonck (2003:333)). The last two types of layout are **loop layouts** and **spine layouts**. These two increase customers' sightlines and their exposure to products, while encouraging the customer to circulate throughout the entire store. To increase impulsive gaming most casinos use the free-flow layout.

According to the Pennsylvania code (2007:2) as illustrated in **Figure I** each casino-licensed applicant must provide a floor plan of the gaming area to the casino board when applying for a casino license. The proposed floor plan should include the proposed total square meters, the perimeter of the gaming floor and the alternative route for underage persons to cross the gaming floor. The Pennsylvania code (2007:2) further states that no slot machine licensee can commence slot operations until the casino board has approved the floor plan. According to Van Looy et al. (2003:334), when designing a servicescape, organisations have to take a more analytical point of view.

The three dimensions identified by Van Looy et al. (2003:334) that need to be considered when designing a servicescape are:

- **Ambient conditions:** The background characteristics, such as noise, temperature, scent, lighting, aesthetics and colour.
- **Spatial layout:** The elements of the environment that are closely related to the core element of the service. These include items such as machinery, equipment and furniture that are necessary for delivery of the service.
- **Signs, symbols and artefacts:** The items in the physical environment that serve as explicit or implicit communications to its users and tell about the place. Signs such as labels on doors or instructions on how to proceed are used for directional purposes.

Navigating the casino floor

Burton (2005:2) suggests that when entering a casino one should find a landmark to help find the exit. Casinos are designed to confuse guests and to keep them wandering around and playing on the machines along the way. Blackwood (2006:27) points out that the bottleneck entrance of a casino is part of the casinos marketing strategy to lure the visitor closer to the games. The colourful lights, sounds and energy on the gaming floor influence all the visitors' senses. Burton (2005:2) states that casino carpets are designed to keep visitors from looking down. The carpet patterns are meant to cause visitors to turn their eyes away from the carpet and keep looking ahead at the machines and tables. According to Burton (2005:2), casinos want visitors to lose track of time and that is why there are no clocks or windows in the gaming areas.

Blackwood (2006:28) observed that the slot machines and video poker stations are positioned near the casino entrance. The reason for positioning the slot machines and video poker machines at the entrance of the casino is to tempt the visitor to "test the waters" and to feel the rush the casino offers. Blackwood (2006:28) found that casinos place the most profitable slot machines near the main aisles, such as the guest elevators, bathrooms and restaurants. Friedman (2000:47) explains the never-ending layout of the slot machines by referring to a sea layout. The sea layout consists of endless rows of slot banks; where the tops of the machines all blend together at about the same height. The space between the machines and the ceiling of the casino is empty and extends to the far end of the casino. Nestor (1999:41) points out that playing a slot machine is like having a personal gambling party with no impatient dealers or unhappy players to dampen the atmosphere.

Bar and restaurant facilities

According to Burton (2005:2), the guest elevators, bathrooms and restaurants are all located near the gaming area of a casino. Blackwood (2006:29) supports Burton's point of view by indicating that most casinos have a bar central to the main action. Large casinos may offer numerous bars interspersed throughout the casino floor, each bar being decorated in a unique theme. Some of the casino bars offer live music, while others offers only bar services to take a quick pit stop.

There is no escaping the games the casino offers, seeing that casino bars are located in the midst of all the action. If the gamers don't feel like leaving the table or slot machines, cocktail waiters are available to take drink orders. According to the International Gaming Institute (1996:128), most casinos seek to achieve three major food-and-beverage department objectives. The first objective is to enhance the gaming revenue of the casino. The second is to provide maximum guest convenience. The last objective is to attract a large number of gaming guests to the casino. From the above discussions it may be concluded that the servicescape has many factors that can influence the perceptions of gamers regarding the layout of the casino gaming area. For the purpose of this research the access to the food services, slot and table games, restrooms as well as the adequacy of the directions found in the casino were investigated.

Interior design of casinos

Important to this research is the interior design and aesthetics of the gambling area of a casino. Wakefield and Blodgett (1996:45-61) point out that the quality of the interior design of the gaming area may play an important role because it influences the gamers in their desire to stay longer in the servicescape, and as a result how much money they will spend. Friedman (2000:5) found that interior design is more important in determining potential player counts than management, marketing and operations combined. The interior design of a casino is the reason why some casinos perform better than other casinos.

Blackwood (2006:10) states that every element in a casino, from the design of the wall paper, floral arrangements, glittering lights, slot machines, table games to the thickness of the carpet, draws visitors and keep them gambling as long as possible. According to Bitner (1992:57), the effect of atmospherics, or physical design

and décor elements, on consumers and workers is recognised by managers and mentioned in approximately all marketing texts. Friedman (2000:5) states that effectively designed casinos have higher player counts, even when weak marketing, management and poor operations exist. Blackwood (2006:10) points out that the colours, sights, sounds and sensations that gamers experience while visiting a casino all serve one purpose only, and that is to make the customer cheerful. According to Bitner (1992:57), individuals react to places with two general, opposite forms of behaviour: approach and avoidance. Approach behaviours include all positive behaviours that might be directed at a particular place, such as a desire to stay and explore. Avoidance behaviours reflect the opposite, in other words not to stay and not to explore. According to research done by Friedman (2000:608), cut-throat situations exist regarding the interior design of a casino. Casinos that do remodelling on a regular basis often attract higher player counts than those casinos that stay the same over the years.

According to Bitner (1992:57), individuals visit particular service organisations with a goal or purpose, and they may be aided or hindered by the setting. Friedman (2000:609) states that casinos with distinctively more appealing interiors attract more players than casinos with less appealing interiors. When two casinos launch similar marketing programmes, the one with the more attractive interior will attract more business than the other casino. According to Bitner (1992:57), environments that elicit feelings of pleasure are likely to be the ones where people want to spend time and money, whereas unpleasant environments are avoided. In the following section the research methodology used in this research will be discussed. In this paper the following interior design elements were investigated: the lighting in the gaming area of the casino, the interior wall and colour schemes of the casino, the noise levels on the gaming area and finally the décor of the casino.

RESEARCH METHODOLOGY

According to Wrenn, Stevens and Loudon, (2002:2) marketing research is the function which links the customer and public to the marketer through information used to identify and define marketing opportunities and problems, and to generate, refine, and evaluate marketing actions. According to McDaniel and Gates (2005a:6), marketing research performs three functional roles, namely a descriptive function, a diagnostic function and a predictive function. The descriptive function, according to McDaniel (2005b:6), includes gathering and presenting statements or facts. The diagnostic function explains the research data or actions; and lastly the predictive function specifies how to use the descriptive and diagnostic research to predict the results of a planned marketing action. For the purpose of this paper, marketing research is defined as systematically collecting, recording, analysing and interpreting data to arrive at conclusions and make significant recommendations to unravel the problem and accomplish the objectives.

Problem formulation and research objectives

The problem identified was how gamers perceive the layout, accessibility and aesthetics of the servicescape and what influences their desire to stay longer at the servicescape. The first objective of this research was to determine the gamer's perceptions concerning the layout and accessibility of the casino; this includes the food services, slots and table games, directions and restrooms. The second objective of this research was to determine how the gamers perceive the aesthetics of the casino, which include the lighting, wall and floor colour schemes, noise levels inside the casino and the décor.

Sources of data

McDaniel and Gates (2005:323) identify two decisions that have to be made by the researcher, namely the establishing of the data source and the data-collection method that is most effective for the investigation. A literature review was conducted by using secondary sources to establish if any related research had been done previously. External secondary data like the internet, libraries, newspapers articles and international gaming

magazines, which reach the limelight in the entertainment industry, were applied. The data-collection process of primary data takes much longer than that of secondary data. With primary data the researcher develops a questionnaire, sends it out to different respondents, and then waits for feedback. Secondary data are freely available to the researcher at any time, (Malhotra, 2007:103). In this study a combination of primary and secondary data was utilised.

Sampling

A decision on sampling procedure must be preceded by a decision on who will provide one with the required information. Larger samples are preferred, since they yield more reliable data. According to Wrenn et al. (2002:158), sampling consists of obtaining information from a portion of a larger group or population. In this research it was decided to make use of convenience sampling seeing that gamers will not stop gaming while sitting at the slots machines or tables while they are being interviewed. The sample size was calculated as 375 gamers to be interviewed. Webb (2002:60) states that the accuracy of the sample, the degree to which it is an accurate re-presentation of the population against some chosen characteristic, is not related to the size of that population but to the size of the sample. The target population consists of gamers gaming at selected Sun International casinos with 700 and more slot machines, and casinos with less than 700 slot machines in three South African provinces. In this research a focus group discussion was held to assist the researcher in constructing the questionnaire.

Data collection

Data collecting can be done by means of a telephone survey, mail surveys, personal interviews or internet surveys (Kotler & Keller; 2006:111). The primary data-collection method selected for this research is the personal interview method. The interviewers approached gamers' who was sitting around not gaming; those who take a break in between gaming; or those finish gaming and are on their way to another place. According to Aaker, Kumar and Day (2003:233), the interviewer interviews the respondents in person when using the personal interviewing survey method. McDaniel and Gates (2005:125) define personal interviews as a form of direct communication in which an interviewer asks respondents questions face to face in order to obtain specialized forms of information. In this research the field workers approached gamers in the gaming area of the casino.

For the purpose of this research the Likert scale was utilized to determine gamers' perceptions regarding the casino Layout, accesibility and aesthetics. The Likert scale is easy to understand, construct and administer by a researcher, although it can be time consuming at times. A total of 440 questionnaires were completed at the end of the data collection, due to an even number of 110 respondents interviewed at each of the four selected casinos.

Coding and Validation

According to Zikmund and Babin (2007:485), coding is the process of identifying and classifying each answer with a numerical score or other character symbol. Churchill and Iacobucci (2002:575) define coding as the technical procedure by which raw data are transformed into symbols. These symbols are numerals and can be tabulated and counted more easily. A variable was assigned to each statement in the questionnaire. Each statement had a numerical score: (1) strongly agree, (2) agree, (3) neither agree nor disagree, (4) disagree and (5) strongly disagree. For the purposes of this research the raw data obtained from the questionnaires underwent preliminary preparation before they were analysed statistically.

Editing and data capturing

The raw data obtained from the questionnaires was edited by the authors before they were analysed statistically. The researcher evaluated the questionnaires and eliminated one questionnaire that was inadequately

completed. After the raw data were edited, the data were converted into a suitable form for statistical analysis. The data were captured on the Excel computer program and analyzed on the SPSS statistical program. According to Zikmund and Babin (2007:272), experiments are judged by two measures of validity. The first one is internal validity that determines whether the independent variable was the sole cause of the change in the dependent variable. The second type of validity is external validity, which determines whether the results are applicable to the real world. Field experiments are lower than laboratory experiments in internal validity, but higher in external validity. A Cronbach's Alpha coefficient of 0.876 was obtained that confirmed the reliability of the measuring instrument. The results of the research will be discussed in the following section.

RESULTS AND DISCUSSION

According to Zikmund and Babin (2007:546), researchers commonly test hypotheses stating that two groups differ. In marketing research, differences in behaviour, characteristics, beliefs, opinions, emotions or perceptions are commonly examined. For the purpose of this research the levels of agreement and disagreement between male and female gamers' were analysed, seeing that these two groups might differ in opinion. Two hundred and seven of the respondent's interviewed in this research were male and 232 were female. Data tables were constructed to analyse the levels of agreement and disagreement of variables concerning the layout and accessibility of the gaming areas in casinos with 700 and more slot machines, and casinos with less than 700 slot machines. A total number of 440 respondents were interviewed at four selected casinos. From the total respondents interviewed, 220 of the respondents were interviewed at casinos with 700 and more slot machines, and 220 at casinos at casinos with less than 700 slot machines. Only one questionnaire was rejected during the editing process due to incompleteness, making a total of 439 correctly completed questionnaires that were used in analysing the data. According to Aaker, Kumar and Day (2003:434), many adjustments can be made to the data in order to enhance their quality for data analysis The final number of correctly completed questionnaires was 219 from casinos with 700 and more slot machines, and 220 from casinos with less than 700 slot machines.

In **Table 1**, the levels of agreement and disagreement between independent variables (male and female) and the dependent variables of layout and accessibility (V1, V2, V3, V4, V5 and V6) were analysed. The mean statistics and the significant difference results that were obtained from the independent t-test were used to analyse **Hypothesis 1** and **Hypothesis 2**, and then to either accept or reject the hypotheses.

Hypothesis 1

Ho₁ – No significant differences exist between the perceptions of male and female gamers regarding the way gamers perceive the layout and accessibility of the casino.

Ha₁ – Significant differences exist between the perceptions of male and female gamers regarding the way gamers perceive the layout and accessibility of the casino.

Variable description	Mean / (Standard Deviation) Casinos with 700 and more slot machines		700 and more slot machines results of hypothesis test	Mean/ (Standard Deviation) Casinos with less than 700 slot machines		Less than 700 slot machines results of hypothesis test
	Male	Female		Male	Female	
V1 – The casino layout makes it easy to find the kind of food service you want.	1.71 (.942)	1.65 (.762)	MD = .058 t = .498 df = 217 Sig = .619 p-value =>0.05 Ho A Mean (1+2) =1.68 Strongly agree to Agree	2.08 (1.152)	2.15 (1.069)	MD = -.064 t = -.425 df = 218 Sig = .671 p-value =>0.05 Ho A Mean (1+2)=2.12 Agree to Neither Agree nor Disagree
V2 – The casino is designed in such a manner that one can without difficulty find the slot machines.	1.49 (.602)	1.61 (.861)	MD = -.115 t = -1.142 df = 217 Sig = .255 p-value =>0.05 Ho A Mean (1+2) =1.55 Strongly Agree	1.68 (.823)	1.92 (.920)	MD = -.238 t = -1.997 df = 218 Sig = .047 p-value =<0.05 Ho R Mean (1+2)=1.81 Strongly Agree to Agree
V3 – The casino layout makes it difficult to find the table games.	4.11 (1.273)	4.10 (1.201)	MD = .008 t = .049 df = 217 Sig = .961 p-value =>0.05 Ho A Mean (1+2) =4.11 Disagree	2.89 (1.241)	3.06 (1.154)	MD = -.170 t = -1.051 df = 218 Sig = .294 p-value =>0.05 Ho A Mean (1+2)=2.98 Agree to Neither Agree nor Disagree
V4 – The casino has adequate directions.	1.58 (.817)	1.52 (.789)	MD = .059 t = .543 df = 217 Sig = .588 p-value =>0.05 Ho A Mean (1+2) =1.55 Strongly Agree	1.85 (.882)	1.76 (.840)	MD = .081 t = .696 df = 218 Sig = .487 p-value =>0.05 Ho A Mean (1+2)=1.80 Strongly Agree to Agree
V5 - The casino layout	1.56	1.50	MD = .068	1.86	2.02	MD = -.169

<i>makes it easy to find the restrooms.</i>	(.841)	(.789)	$t = .619$ $df = 217$ $Sig = .537$ $p\text{-value} \Rightarrow > 0.05$ H_0 A $Mean (1+2) = 1.53$ Strongly Agree to Agree	(.816)	(1.127)	$t = -1.287$ $df = 216.538$ $Sig = .200$ $p\text{-value} \Rightarrow > 0.05$ H_0 A $Mean (1+2) = 1.95$ Agree
<i>V6 - Overall, this casino's layout makes it easy to get where you want to go.</i>	1.46 (.601)	1.44 (.630)	$MD = .023$ $t = .280$ $df = 217$ $Sig = .780$ $p\text{-value} \Rightarrow > 0.05$ H_0 A $Mean (1+2) = 1.45$ Strongly Agree	1.68 (.685)	1.75 (.742)	$MD = -.068$ $t = -.693$ $df = 218$ $Sig = .489$ $p\text{-value} \Rightarrow > 0.05$ H_0 A $Mean (1+2) = 1.72$ Strongly Agree to Agree
Abbreviations:						
V - Variable		MD - Mean difference		t - T-test		
Df - Degree of freedom		Sig - Significant 2 tailed test		SD - Standard Deviation		
Ho - Hypothesis		A - Accepted		R - Rejected		

Table 1. Levels of agreement or disagreement between male and female respondents regarding the layout and accessibility of the four selected casinos

Table 1 gives an overall picture of the perceptions of male and female gamers in both of the two categories (casinos with more than 700 slot machines and casinos with less than 700 slot machines); regarding the way gamers perceive the layout and accessibility of the casino. Male and female gamers at selected casinos with 700 and more slot machines and at casinos with less than 700 slot machines indicated that:

- Gamers experience that the casinos are designed in such a manner that one can easily find the slot machines.
- Gamers at casinos with 700 and more slot machines are more acquainted with the casino layout to find the tables than gamers at casinos with less than 700 slot machines.
- Gamers experience that the casinos have adequate directions.
- Gamers agree that the casinos layout makes it easy to get to the restrooms.
- Overall gamers perceive that the casinos' layout makes it easy to get to where gamers want to go.

A brief synopsis is that both male and female gamers at selected casinos with 700 and more slot machines and casinos with less than 700 slot machines perceived the layout and accessibility of the different casinos as easy to go where you want to be, and that adequate directions exist. H_{01} is therefore accepted and H_{a1} is rejected. The only statistically significant difference existed with V2 (only for casinos with less than 700 slot machines) and H_{01} ($p > 0.05$) is therefore rejected and H_{a1} ($p < 0.05$) is accepted for the variable.

Table 2 reflects the levels of agreement and disagreement between independent variables (male and female) and the dependent variables on the aesthetics of the gaming area (V7, V8, V9, V10, V11 and V12) were analysed. The mean statistics were used to analyse **hypothesis 2** and the significant difference to either accept or reject the hypothesis.

Hypothesis 2

Ho₂ - No significant differences exist between the perceptions of male and female gamers regarding the way gamers perceive the facility aesthetics of the casino.

Ha₂ - Significant differences exist between the perceptions of male and female gamers regarding the way gamers perceive the facility aesthetics of the casino.

Variable description	Mean / (Standard Deviation) Casinos with 700 and more slot machines		700 and more slot machines results of hypothesis test	Mean/ (Standard Deviation) Casinos with less than 700 slot machines		Less than 700 slot machines results of hypothesis test
	Male	Female		Male	Female	
V7 – The lighting in the casino is too bright.	4.27 (1.124)	4.42 (.975)	MD = -.149 t = -1.049 df = 217 Sig = .295 p-value =<0.05 Ho A Mean (1+2)=4.35 Disagree	3.44 (1.299)	3.49 (1.210)	MD = -.045 t = -.262 df = 218 Sig = .793 p-value =>0.05 Ho A Mean (1+2)=3.47 Neither agree nor Disagree
V8 – The interior wall schemes of the casino are attractive.	1.69 (.955)	1.60 (.914)	MD = .095 t = .748 df = 217 Sig = .455 p-value =<0.05 Ho A Mean (1+2)= 1.64 Strongly Agree to Agree	2.11 (1.069)	1.93 (.912)	MD = .178 t = 1.310 df = 188.848 Sig = .192 p-value =>0.05 Ho A Mean (1+2)= 2.01 Agree
V9 – The casino floor colour schemes are unattractive.	3.97 (1.371)	3.81 (1.430)	MD = .165 t = .874 df = 217 Sig = .383 p-value =<0.05 Ho A Mean (1+2)= 3.89 Neither Agree nor Disagree	3.19 (1.364)	3.24 (1.438)	MD = -.050 t = -.263 df = 218 Sig = .793 p-value =>0.05 Ho A Mean (1+2)=3.21 Neither Agree nor Disagree
V10 – The noise levels inside the casino are distracting while I play.	3.27 (1.520)	3.28 (1.582)	MD = -.012 t = -.056 df = 217 Sig = .956 p-value =<0.05 Ho A Mean (1+2)= 3.28	3.43 (2.487)	3.28 (1.332)	MD = .157 t = .598 df = 218 Sig = .550 p-value =>0.05 Ho A Mean (1+2)=3.35

			<i>Neither Agree nor Disagree</i>			<i>Neither Agree nor Disagree</i>
V11 - <i>The casino is decorated in an attractive fashion.</i>	1.55 (.863)	1.52 (.812)	MD = .032 t = .279 df = 217 Sig = .780 p-value =<0.05 Ho A Mean (1+2)= 1.54 Strongly Agree	1.90 (.784)	1.84 (.762)	MD = .060 t = .568 df = 218 Sig = .571 p-value =>0.05 Ho A Mean (1+2)=1.86 Strongly Agree to Agree
V12 - <i>This is an attractive casino.</i>	1.58 (.850)	1.50 (.777)	MD = .077 t = .701 df = 217 Sig = .484 p-value =<0.05 Ho A Mean (1+2)= 1.54 Strongly Agree	1.71 (.661)	1.70 (.626)	MD = .012 t = .139 df = 218 Sig = .889 p-value =>0.05 Ho A Mean (1+2)=1.70 Strongly Agree to Agree
Abbreviations:						
V - Variable		MD – Mean difference		t – T-test		
Df - Degree of freedom		Sig – Significant 2 tailed test		SD – Standard Deviation		
Ho - Hypothesis		A – Accepted		R – Rejected		

Table 2 Levels of agreement or disagreement between male and female respondents regarding facility aesthetics of the four selected casinos

Table 2 gives an overall picture of the perceptions of male and female gamers in both the two categories regarding the way gamers perceive the facility aesthetics of the casino. Statistically, no significant difference exists between male and female gamers in both of the two categories at the selected casinos, according to the hypothesis tests for the variables (V7, V8, V9, V10, V11 and V12).

Both two categories (casinos with more than 700 slot machines and casinos with less than 700 slot machines); agreed that the lighting in the casino is not too bright, but acceptable, and the interior wall schemes of the casinos are attractive, as well as the casino floor colour schemes. Sometimes the noise levels inside the casinos distract the gamers. This could be due to the regular announcements on the floor regarding promotions or events. All the casinos used in this study were decorated in an attractive fashion according to the gamers.

In conclusion both male and female gamers at casinos with 700 and more slot machines and casinos with less than 700 slot machines perceived the facility aesthetics of the different casinos to be attractive. Ho₂ is therefore accepted and Ha₂ is rejected.

CONCLUSION AND RECOMMENDATIONS

The casino has a physical setting where gaming activities are installed for entertainment and pleasure of the gamers'; this is also referred to as the gaming area. All casinos must provide a detailed floor plan to the casino board when applying for a casino license. The interior design and floor plan of a casino can influence gamers' perceptions in a positive or negative way.

In general the male and female gamers at the four selected Sun International casinos perceive the layout and accessibility of the casinos as acceptable and it is easy to get where they want to go. The wall and floor colour schemes of the four casinos were described as eye-catching. The authors found that although the gamers' were overall satisfied with the layout, accessibility and casino aesthetics. Additional recommendations came to light after interviewing the gamers'. Information display boards can be placed near *MVG (Most Valued Guest)* desk or casino entrances to guide gamers to their destination of choice.

A small leaflet indicating the layout of the casino plus the tables and slot machine denominations could be provided to the gamers at the main entrance of the casino or at the *MVG* desk. A quiet booth where gamers can answer their cell phones must be set up inside the casino gaming area, so that no need exists for the gamers to leave the gaming area. The number of announcements on gaming areas must be limited to a minimum to avoid any disturbance of the active gamers. Electronic notice boards should be placed at strategic points in the casino. Reflection of casino lights on some slot machines might upset some gamers while gaming; maintenance must regularly check for lights that might reflect on the slot machines. The investigation into gamers' perceptions of the layout, accessibility and aesthetics of the gaming area will provide casino management with insight, on how to improve the layout, accessibility and aesthetics of the gaming area if needed. The management of casinos can also use the findings of this research for future casino developments and decision making. "Quality begins on the inside... and then works its way out" - Bob Moawad.

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CAN THE LESSONS BE LEARNED FROM ORGANIZATIONAL MARRIAGES? THE CASE OF MADGE & LANNET MERGER

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On October 1998, Lannet Data Communication Ltd. (Hereinafter: "Lannet") was sold to Lucent technologies Inc. (Hereafter "Lucent") for a total price of US\$117M. This sale marked the end of a merger destined to provide Lannet with the much-needed strategic breakthrough. The said merger started in 1995.

In July 1995, the multinational manufacturer of data communication and networking products, Madge Networks N.V. (Hereinafter: "Madge"), purchased the share capital of the Israeli company, Lannet, at US\$27.5 per share, even though its then current market price was only US\$19. The total value of the acquisition was US\$330.

However, this friendly and promising merger between two similar enterprises turned out, upon its implementation, to be problematic. A large number of problems were encountered during the process of attempting to integrate the respective operations, with the result that the value of the Madge stock declined by more than 90% over the course of less than three years.

The case describes two high technology, international companies, prior to the merger, the negotiation process, the manner in which the merger was implemented and the events leading to the sale of Lannet to Lucent.

"Does the name Robert Madge mean anything to you? It probably rings a bell, if a distant one. Madge was the founder of Madge Networks, which in the late '90s was the market leader in Token Ring networking technology. The once high-flying company has since met the same fate as that of Token Ring itself: near oblivion" (Tennant, 2008).

INTRODUCTION

According to KPMG's Corporate Finance Dealwatch 1999, the total value of cross-border transactions has increased fourfold from \$196.4 billion in 1994 to \$798 billion in 1999. Cross-border takeovers are the largest component of Foreign Direct Investment (FDI) in the U.S., and an increasingly large component of total U.S. acquisitions. European companies do more cross-border than domestic activity, with more than half of total cross-border volume targeted at non-European Community countries. U.S. companies continue to be largest net sellers on the global cross-border M&A balance sheet. For example, non-U.S. firms acquired nearly \$200 billion worth of assets in technology acquisitions alone in the U.S. over a period of a year and a half starting in January 1998 (Inkpen et al., 2000).

Most of the research about M&A "has not been systematic and linked to any other comprehensive theory" (Schweiger & Goulet). Research about M&A is still fragmented, leaving gaps waiting to be addressed (Shimizu et al., 2004). For example, many studies were conducted

under the assumption that M&A are homogeneous, but in reality not all M&A are alike (Bower, 2001). A major omission in this respect has been the absence of comparative studies between M&A in various countries.

The M&A aspect is especially important in Israel, a country poor in natural resources but rich in human capital. Israel has a high proportion of scientists and engineers in the population, with approximately 130 scientists and engineers for every 10,000 workers (Chorev & Anderson, 2006), compared with 80 in the U.S. and 75 in Japan. Israel has the highest number of start-ups in the world relative to population size. More than 130 high-tech Israeli firms are listed on the US stock exchange, the largest number of any nation outside North America (Lashinski, 2000; Yeheskel, Shenkar, Fiegenbaum, Cohen & Geffen, 2001).

The number of mergers involving Israeli companies, including the high-tech industry, is continually growing (see Figure 1 below, 2008 Israeli Venture Capital Association report).

For example, M&A activity involving Israeli companies that were either acquired or merged totaled \$3.2 billion in 2007 in 75 deals – the second highest number of M&A deals in any one year to date.

Mergers and acquisitions of VC-backed Israeli companies in 2007 totaled \$1.9 billion and consisted of 32 deals. According to Israeli Venture Capital Association General Manager Guy Holtzman, “In times of uncertainty in capital markets, exits generally take place through M&A transactions rather than IPOs. Global technology firms with operations in Israel may well take advantage of the current economic situation and expand their local activities through acquisitions.” Israeli companies were also on the acquiring side in some 60 deals in 2007, including about 20 where one Israeli company acquired another Israeli company, and nearly 40 acquisitions of foreign companies. Israeli companies spent \$2.15 billion on mergers and acquisitions in 2007, of which \$1.96 billion was for acquisitions of foreign companies.

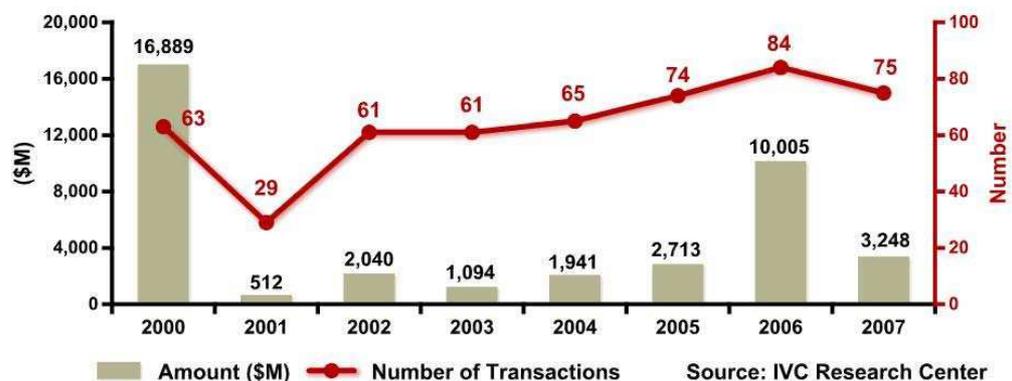


Figure 1- Mergers & Acquisitions of Israeli High-Tech Companies

There can be various motives for foreign acquisitions, including synergism, managerialism, and hubris (Seth, Song and Richardson, 2000; 2002). M&As are an important globalization strategy because they have a high potential to meet strategic goals by exploiting synergy through different sources of competitive advantage. In Europe, the strategic rationale for many M&As was clearly a desire by many European companies, free of the political barriers that had fragmented their markets, to consolidate their efforts in order to match the economic scale advantages of their U.S. and Japanese competitors (Calori and Lubatkin, 1993). Similarly to their U.S. counterparts, many of the buying firms found it less difficult to determine what merger strategies to pursue than how to implement them. Indeed, a survey of more than 200 European chief executives found that the challenge of integrating the newly acquired companies was viewed as more important to the success of the merger than the more traditional strategic considerations (Booz Allen and Hamilton, 2001). There are repeated reports in the literature about M&As that have not lived up to expectations. The failure rate is above 50% (e.g., Cartwright and Cooper, 1993). Despite all this, the challenge of making international acquisitions succeed has been relatively ignored by the international management literature.

M&As have traditionally attracted strong academic interest in the fields of industrial economics, financial economics, strategic management, and more recently, organizational behavior. The vast majority of research in these domains has focused on combinations of firms with the same national background. This is also true for organizational research typically concerned with decision-making issues and implementation processes in M&As. Generally, there has been little systematic research in the field, although this situation has been slowly changing. Moreover, the significance of national culture differences and their effect on behavior and management systems is widely acknowledged in the international management literature with respect to cooperative ventures (e.g., Black, Mendenhall, and Oddou, 1991; Hofstede, 1980; Lane and Beamish, 1990), and specifically to M&As (e.g., Kogut and Singh, 1988; Rosenzweig and Singh, 1991; Weber, Shenkar, and Raveh, 1996). Nevertheless, conventional theories on internationalization have paid little attention to M&As as a major route to internationalization, and have barely addressed the cross-cultural integration process that follows every cross-border acquisition (Melin, 1992).

Most of the academic research on domestic acquisitions (DM&A) illustrates the high failure rate of M&As by focusing on issues other than those associated with the post-merger consolidation processes of the buying and acquired firms. Much of the past literature focuses on pre-acquisition decision making (Haspeslagh and Jemison 1991; Jemison and Sitkin 1986) or the financial impact of acquisition transactions (e.g., Datta, Narayanan, and Pinches, 1992). Recently, more attention has been paid to difficulties arising during post-merger integration owing to a lack of organizational fit (Datta 1991; Weber, Shenkar, and Raveh, 1996; Lubatkin, Schweiger, and Weber, 1999).

The literature in the M&A area of DM&As is richer and has been focusing increasingly on comprehending the consequences of culture clash on individuals, groups, and organizations during the integration process (e.g., Nahavandi and Malekzadeh, 1988; Datta, 1991; Weber, 1996; Weber et al., 1996). It is now possible to utilize the DM&A literature to formulate theories and

models that would assist researchers and practitioners in understanding the human resource issues involved in international M&As.

MADGE & LANNET - A TALE OF CROSSBORDER MERGER THAT FAILED

The handful of reporters covering the class action suit against Madge Networks NV, known as Madge, slipped into the back seats of the crowded room, hoping to hear more details of the alleged federal securities violations. The breakneck pace of international M&A in the computer network industry caused one more casualty. An officer and director of Madge were charged with violations of federal securities laws. While Madge, which manufactures and sells data and communication networking products, was in the process of acquiring Lannet Data Communications Ltd. (Lannet) and Teleos Communications Inc. (Teleos), in exchange for millions of shares of Madge stock, the defendants allegedly participated in inflating the price of Madge's stock from \$28-7/8 on October 12 1995 to a high of \$48-5/8 on June 16, 1996. Robert Madge, founder and chairman, had envisioned a global network of acquired corporations in North America, Europe, the Far East, and the Middle East, and now his dream was tainted with the sour taste of failure. His dream came up against the harsh realities and complexity of international mergers. Was the high flying, risk taking Robert "Bobby" Madge considering only strategic and financial fit? Was he oblivious to the impact of corporate and national cultural fit on the success of an international merger?

MADGE AND LANNET PRIOR TO THE MERGER

Madge

Madge Networks, NV a Dutch company, is a supplier of computer network solutions based on the Token Ring Smart Ringswitch standard. The Token Ring was developed and marketed in the early 1980s by IBM. Founded in 1986, Madge functioned as a British corporation named Madge Networks Limited.

In June 1993, all of its shares were bought by Madge Networks NV and was listed on NASDAQ with a market valuation of \$300M. On the eve of the merger, towards the end of 1995, the company had 1,500 employees worldwide. In 1987, the company launched its Token Ring line of products. The product line was expanded to include a complete mix of adapter cards, which are hardware components installed in the computer that enable it to connect to a network; switchboards called Stackable Hubs, which control and manage the network; general software; and network management software. Just before the merger, Madge had developed a Token Ring switch and announced its plan to offer new products that allow Token Ring network users to integrate ATM architecture. ATM technology, the upcoming computer networking standard, is suitable for Local Area Networks and Wide Area Networks and is used for data, voice and video transmissions.

Most of the company's revenues are generated through the sale of products and a smaller portion of sales are generated through licensing technology. The products are used mainly by large organizations that have replaced central, main frame computer systems with distributed networks using client/server configurations. In the main, the company's customers include large

corporations and government organizations with critical, centralized applications that operate in an IBM environment.

Madge's centers of marketing, after-sale service and technical support are located in 40 sites in 20 countries. Generally, the company markets its products directly to end customers. However, a significant number of its worldwide sales are generated by a network of distributors, retailers, large systems installers and OEM's (Original Equipment Manufacturers).

Madge has incorporated subsidiaries in countries where there is a need for local representation of marketing and sales departments and also when local financing and production confers a business advantage. Overall, the Madge group includes approximately 16 subsidiaries with various operational and legal relationships. The R&D centers of the company are located in England and the USA. The company has invested approximately 9% of revenues in R&D.

The product strategy of the company is to help its customers gain a competitive advantage through the development of a wide selection of products and services for use in computer networks. Since Madge works closely with its customers on current communication and network installations, it gains insight into the communication needs of its customers, which it incorporates into its next generation of products. The R&D programs include further development of Token Ring technology in order to maintain market presence, while also investing in a new line of products for ATM networks. Subcontractors carry out production according to Madge's specifications and design. The company is presently constructing a plant in Ireland and plans to employ a production strategy based on integrating its own production with production outsourcing in order to maximize flexibility, reduce time to market and facilitate quick response to customer requirements.

<i>Year</i>	<i>Sales (\$M)</i>	<i>Profit (\$)</i>
1990	19.6	
1991	33.4	
1992	78.8	7.4
1993	145.4	25.6
1994	213.3	37.5
1995 (3 rd . quarter)	209.6	25.5

Table 1 - Madge's Sales Prior to Merger

Madge's major competitors are IBM, OLICOM, 3Com, and Bay Networks. Madge is expected to compete with these companies in the ATM market, which also attracts new entrants.

Madge's success is highly dependent on the contribution and leadership of its principal founder and CEO, Mr. Robert H. Madge. Without his expertise, the company's operations and competitive advantage would be materially affected. The success of Madge is also dependent on a small number of key employees and senior managers. Madge is confident of its future market prospects and believes that its success is directly related to its ability to attract and employ highly skilled technical, managerial and marketing personnel. The competition for this kind of personnel is very intense and there is no guarantee of success.

Lannet

Lannet was founded in Israel in 1985. It is a wholly owned subsidiary of the Rad Binat group of companies. Lannet develops, produces and markets the following: Local Area Network (LAN) solutions for business systems, ethernet switching, and internet products for ATM technology. The ethernet technology was a tested technology and was more widespread than the Token Ring technology. It is suited to large organizations with relatively low network loads. Lannet switchboards are world-renowned for their technologically superior performance.

The founders of Lannet hold approximately 30% of its outstanding shares and are actively involved in the company's day to day management. R&D and production are based in Israel, a country well known for its highly educated, highly skilled employees. Lannet invests about 10% of revenues in R&D. The company employs 320 workers.

Marketing and after-sale service and support are executed through subsidiaries in the US, Far East and South America. These subsidiaries support Lannet's distributors and customers. Lannet is dependent on an international network of distributors and agents that frequently install, service and maintain customer networks. Among the large customers that have acquired Lannet switchboards are Airbus, BMW, and Swiss Bank.

Lannet has international cooperation agreements with AT&T and Olivetti. Lannet was listed on NASDAQ in 1991 with a valuation of \$54M. Lannet was granted tax-exempt status in Israel and continued growing while maintaining its position among the top three companies in its field. While the first two years showed poor financial results, the 1993 results indicate growth and expansion.

The company did not reinvest the funds accrued through the NASDAQ listing. Following the lack of investment in 1993, sales plummeted and the stock price took a beating. In 1995 sales topped \$100M, 95% of it overseas, with \$15M profit. The company has 350 employees and utilizes subcontractors based in rural Israel.

Lannet, which focuses on Ethernet technology, shares with Madge its main competitors: Cisco, 3Com, and Bay Networks.

<i>Year</i>	<i>Sales (\$M)</i>	<i>Profit (\$M)</i>
1993	100	15
1994	70.2	5.6
1995 (3 rd Quarter)	74	9.2

Table 2 - Lannet's Sales Prior to the Merger

Lannet: The Quest for a Strategic Partner

During the period in question, Lannet competed against Cisco, the American giant, in bidding on a major contract with the Republic Bank. Prior to this bid, Lannet had sold its products to one of the Republic Bank's Brazilian branches as well as to several Swiss banks. At the time, it seemed that Lannet's competitive advantage was as follows:

- Lannet had a proven record in the banking industry
- The Republic Bank requested an existing, proven, product which was not custom designed. Lannet was the only company offering such a proven product.
- Lannet asked a lower price for the product than Cisco.
- Lannet had a \$10M deposit with the Republic Bank.

However, there were also some apparent weaknesses:

- Lannet had a poor geographic distribution of technical support staff
- To compensate for Lannet's distance from its customer, it was suggested that an employee of Lannet would work for one year at the Republic Bank.

After due consideration, Lannet lost the bid on the basis of "...Lack of viability..." Lannet's executives identified the need for a major shakeup including operational turnaround, a new management philosophy, such as TQM, and strategic cooperation, or a possible merger. A preliminary benchmark study indicated that Lannet was lagging behind the industry. The Cumulative Average Growth Rate (CAGR) of Lannet was less than 100%, while American companies with comparable products were reaching sales of over a billion dollars. This did not bode well in an industry which believes that, "growth rate and size is essential for survival." The company applied a Total Quality Management (TQM) process and found it to be irrelevant. The company tried a detailed costing and focused on efficiencies from the bottom up and found the process to be of no help.

Lannet's Board of Directors considered, but rejected, the idea of a merger with a large corporation. It considered acquiring a smaller company, using the \$40M cash in its coffers. However, preliminary screening for acquisition candidates showed that the smaller firms would not strengthen Lannet substantially. It became apparent that Lannet's best choice was to be acquired by a large international corporation and risk losing identity and control. At this point

Lannet turned discreetly to an investment bank, worrying about the impact of a possible sale of the company on customers and suppliers alike, and wondering about competitors taking advantage of the situation. Only the board and senior managers, who are shareholders, were briefed on the merger options. At this point several opportunities presented themselves. One of the customers offered to buy 20% of the outstanding shares (legally, a holder of more than 20% of a company's shares is required to submit consolidated statements.) Lannet rejected this offer. Lannet was pursuing actively an American OEM, however the pursued company was hesitant about Lannet's potential, share value and negative impact of acquisition on the value of its own shares. (It is interesting to note that the same OEM which was offered Lannet shares for a mere \$200M, ended up buying an inferior company for \$700M. Six months after the merger²³⁹ it was declared a failure. Many workers have left and those that remained were dealt with unfairly).

THE MERGER PROCESS

The Madge's team arrived in Israel for an initial audit of Lannet. Robert Madge, the founder and CEO of Madge landed shortly thereafter, on the way from Australia to England. He offered to buy Lannet for \$330M, at \$27.5 per share, higher than the price suggested by the Madge team (\$24 per share). Lannet's value, according to this offer, was higher than the \$200M offered by the American OEM.

Even though the Lannet managers were concerned about the incompatibility of Madge and Lannet distribution channels, they sealed the deal, conditional upon due diligence and a visit to Madge's facilities in England. In August 1995, the merger was consummated. Lannet's shareholders received shares of Madge at \$27.5 (based on a valuation of \$330M), in return for Lannet's shares, valued at \$19. This represented an immediate profit of 45%.

Although this was an outright acquisition, the announcement described the deal as a merger, to make the Lannet people feel good. The name "Lannet" was eliminated from all documents and products and was replaced with "Madge-Israel."

A feeling of a strong financial backing caused an immediate increase of inventory, despite a reduction of cash reserves. The number of employees increased from 1,200 to 1,700, and in two years reached 2,400. Sales commenced through the sales force, and Lannet's network of local distributors ceased to exist. The image of Lannet as a small, flexible and dynamic firm had been lost.

Employees at Madge-Israel got a brief workshop on bridging the national and corporate cultural gap between the two organizations. While the general impression was that it was easier to work with the British than with the Americans, there were differences that were obvious. Lannet management worked on an informal basis. All employees could approach the senior management at any time in order to present problems and suggest possible solutions. Decisions were made quickly and informally. On the other hand, Robert Madge was always referred to in a formal manner, the hierarchy was always respected and decision making was centralized.

FORESEEING DIFFICULTIES: MADGE'S CONCERNS ABOUT THE MERGER

The shareholders' prospectus directed by Madge to Lannet shareholders prior to the merger, lists the following risk factors:

- Operating efficiencies not realized
- Coordination difficulties due to geographic distance
- Integrating efficient production lines
- Integrating different reporting systems
- Integrating employees with different business background
- Integrating processes and business cultures
- Interruptions due to the integration of activities
- Difficulties due to the sudden increase of employees, managers, geographic coverage, operating and financial systems
- Higher than expected expenses related to the merger (Layoffs, reassignment of workers, elimination of duplication and distribution channels)
- Negative impact on operating efficiencies and bottom line results due to the merger
- Negative impact of Madge's practice of selling Lannet's products directly and not through Lannet's agents
- A complete shutdown of all Lannet's activity in Israel.

MERGER RESULTS

During 1996, many difficulties presented themselves. Sales stagnated. Disagreements with headquarters were developed. Lannet, now called Madge-Israel, was required to adopt the marketing and distribution practices of Madge International. As a result, Lannet's best distributors started to work with the competition. Former Lannet founder and CEO, Ben Hanigal, left Madge-Israel. Arik Ben-Hamou, CEO of 3Com, a competitor, said "Despite the merger, Madge did not achieve the size required to invest in R&D of new products as well as increasing market share and sales." In 1997, the merged company let 400 employees go and started a major reorganization. For the first nine months of the year, the company reported losses of \$74M, a sales reduction of 18%, and \$48.7M of reorganization expenses.

In July 1997, the company announced "...organizational changes that help the company to focus on its technological skills in order to return to solid profitability." The changes included return to the pre-merger distribution and sales network. However, the fourth quarter ended with a significant loss and further reduction in share values.

The third quarter of 1997 shows a loss of \$62.7M on revenues of \$83.2M compared to a loss of \$67M during the comparable quarter in 1996. Revenues were down by 26% compared to 1996. The gross profit margin was 46.6%. After allowing for reduced sales and administration expenses and excluding the non-recurrent reorganization costs, the company reported a loss of \$9.4M. Madge shares traded at \$5.75, significantly below their value at the time of the merger.



Table 3 - Madge's Stock Prices for the Period 1994 - 1999

In order to get the cash required for continuity, the company raised, through a private offering, deferred convertible bonds in the amount of \$30M. The declared use of the funds was for "...helping in the implementation of a customer focused strategy and developing communication solutions for data, video and voice..."

Typical comments by the acquired Israeli firm employees were:

- "... We were required to fill in forms and get authorization for every action..."
- "... We have lost our autonomy, every new recruit had to be approved by head office in England..."
- "... The British disregarded many reports that were generated in Israel..."
- "... The project presentations were always made by the British manager, and little credit was given to the Israeli teams..."
- "... The reports went only one way..."
- "... We were required to work Fridays, which are considered to be part of the Israeli weekend..."
- "... Joint R&D teams did not manage to bridge the gap between former Lannet and Madge employees..."
- "... Excessive bureaucracy contributed to the incapacity of the Israeli management team to make decisions..."
- "... Senior management consisted of only Madge personnel except for Lannet's founder and CEO, Benny Hanigal..."

- "... Madge forced its methods and business practices on former Lannet employees..."
- "...The corporate cultures of the two corporations were very different. The head office in England requested a certain focus on R&D, while we were busy doing exactly the opposite in order to show that our ideas were correct and not theirs..."
- "...The general feeling was that there is no leadership and no short or long term plans..."
- "...The right hand did not know what the left hand was doing, no coordination, no focus, no sense of direction..."

The VP for Finance of Madge-Israel left for "personal reasons" and was replaced by Dennis Palmary, a member of the management team. Most board members of Lannet left and sold their shares, causing the employees a great degree of concern and disappointment.

THE MERGER BREAK-UP

Madge management concluded that it was best to allow Madge-Israel to become independent in all its decisions. This included R&D, production, marketing and sales. The CEO got complete authority to make his own decisions. In addition, a company called "Lannet-Israel" would be registered in the Netherlands just like Madge.

The sales and distribution network would be based on distributors and they would market Lannet's products independently. Lannet is now operating under its original name and is recognizable for its Ethernet solutions for computer networking.

The CEO of Lannet, Mr. Levy, says that the break-up of the two corporate entities would allow customers to identify Lannet's products with the reliability and technological breakthroughs commanded by Lannet. He mentioned a joint venture with the Japanese communication giant NEC. The joint venture includes:

- Integration of both companies' production of organizational computer communication
- Lannet will represent NEC
- NEC America will sell Lannet's Ethernet products in the USA.

The above should serve to boost current revenues of \$100M. This is the same level of sales as on the eve of the merger, but with lower profitability. Furthermore, a new manufacturing facility with 300 employees has just started operations at a technological park in Jerusalem with a \$3M investment. Expected production volume is \$100M, of which 95% is earmarked for overseas sales.

<i>Twelve months ended</i>	<i>Dec. 31,1998</i>	<i>Dec. 31,1997</i>	<i>Dec. 31, 1996</i>	<i>Dec. 31, 1995</i>	<i>Dec. 31, 1994</i>
<i>Net sales</i>	301,372	384,059	482,101	427,350	283,517
<i>Cost of sales</i>	147,103	201,729	243,133	197,268	131,334
<i>Gross profit</i>	154,269	182,330	238,968	230,082	152,183
<i>Operating Expenses</i>					
<i>Sales & marketing</i>	81,667	116,204	142,227	102,282	68,286
<i>Research & development</i>	48,021	67,906	67,326	47,617	27,077
<i>General & administrative</i>	18,556	27,542	28,386	20,961	16,545
<i>Special charges</i>	-----	48,733	27,846	39,111	-----
<i>Total operating expenses</i>	148,244	260,385	265,785	209,971	111,908
<i>Income (loss) from operations</i>	6,025	(78,055)	(26,817)	20,111	40,275
<i>Net interest income (expense)</i>	3,272	31	2,266	5,105	3,087
<i>Exceptional income</i>	29,611	----	----	----	----
<i>Income (loss) before tax</i>	38,908	(78,024)	(24,551)	25,216	43,362
<i>Income tax provision (benefit)</i>	3,085	(2,052)	(4,054)	27,201	14,010
<i>Net income (loss)</i>	35,823	(75,972)	(20,497)	(1,985)	29,352
<i>EPS (basic)</i>	0.81	(1.69)	(0.47)	(0.05)	0.74

<i>EPS (diluted)</i>	<i>0.80</i>	<i>(1.69)</i>			
<i>Weighted Average Shares Outstanding (basic)</i>	<i>44,404</i>	<i>45,085</i>	<i>43,976</i>	<i>42,777</i>	<i>39,932</i>
<i>Weighted Average shares Outstanding (diluted)</i>	<i>44,624</i>	<i>45,085</i>			

Table 4 Madge Networks N.V. Condensed Consolidated Statements of Operations (in \$ 000's, except per share amounts)

ASSETS					
	<i>Dec. 31,1998</i>	<i>Dec. 31,1997</i>	<i>Dec. 31, 1996</i>	<i>Dec. 31, 1995</i>	<i>Dec. 31, 1994</i>
<i>Current assets</i>					
<i>Cash, cash equivalents, short term investments</i>	130,494	62,106	38,020	114,006	101,465
<i>Accounts receivables, net</i>	38,966	70,900	95,725	85,194	50,422
<i>Other receivables</i>	8,997	14,731	11,472	10,835	9,647
<i>Inventories</i>	11,474	35,287	53,374	51,501	30,707
<i>Prepaid expenses</i>	4,656	8,769	19,872	15,987	8,633
<i>Total current assets</i>	194,587	191,793	218,463	277,523	200,874
<i>Investment, property, equipment, net</i>	30,405	59,956	75,992	46,755	29,911
<i>Total assets</i>	224,992	251,749	294,455	324,278	230,785
LIABILITIES & SHAREHOLDERS' EQUITY					
Current liabilities	<i>Dec. 31,1998</i>	<i>Dec. 31,1997</i>	<i>Dec. 31, 1996</i>	<i>Dec. 31, 1995</i>	<i>Dec. 31, 1994</i>
<i>Accounts payable</i>	90,661	102,759	104,455	117,772	54,041
<i>Income taxes payable</i>	13,228	7,766	14,364	26,136	12,046
<i>Short term loans</i>	3,811	3,553	3,050		
<i>Total current liabilities</i>	107,700	114,078	121,869	143,908	66,087
<i>Long term obligations</i>	899	38,075	4,409	4,507	4,287
<i>Total liabilities</i>	108,599	152,153	126,278	148,415	70,374
<i>Shareholders' equity</i>	116,393	99,596	168,177	175,863	160,411
<i>Total liabilities and shareholders' equity</i>	224,992	251,749	294,455	324,278	230,785

Table 5 - Madge Networks N.V. Condensed Consolidated Balance Sheet(in \$ 000's)

ANALYSIS OF THE CASE

Effective mergers and acquisitions has been a widespread corporate strategy for a considerable time, but few case studies in the area of strategic management or international management detailed the M&A process in general and failed ones in particular. The strategy of using M&As has become an increasingly common phenomenon, attaining new highs in recent

years. Many research studies, though, have indicated that in at least 50% of all instances, the strategy ends with failure. Despite this statistic, it is uncommon to find a case that treats failed M&A.

It is noteworthy to underscore the point that, of the two entities, Madge has the larger marketing setup, and that they engage in distinctly different technologies. This point is exemplified mainly by Madge's "Token Ring" product line, as opposed to Lannet's "Ethernet" line of switching products.

It would be worthwhile to elaborate on this issue more fully at this time and to stress that Madge and Lannet employ different marketing techniques. Madge markets its products principally to final customers, via its own sales force, whereas Lannet uses outside distributors. In addition, Madge's customers are mainly large organizations and governmental agencies, whereas Lannet sells mainly to small and medium-sized firms whose network loads are relatively low. Furthermore, Madge continued to rely on relatively old-fashioned technologies, while Lannet has managed to achieve more considerable progress in the upcoming area of ATM. Moreover, financial analysis indicates that there have been increases in sales turnover and profitability at Lannet, but not at Madge (see tables 4 and 5).

POSSIBLE ADVANTAGES OF THE MERGER

The marriage between Madge and Lannet was consummated at the end of 1995, when both companies were at their peak. Madge, the younger of the two companies, then specialised in the Token Ring network market, and Lannet contributed on its part the competence in Ethernet networks. The aim of merger between two companies was to enable them to develop a new communications switch based on ATM technology, which was considered at the time to be the last word in fast data communications. In addition, Lannet was supposed to become integrated into Madge's international marketing infrastructure, and, with its help, enter new market segments (Ginzburg, 1998).

The anticipated advantages of the merger at the time were:

- 2) The ability to cooperate in the utilization of operating resources and to produce efficiencies in such functions as manpower, finance, manufacturing and marketing. Reduction of inventories, reduction of R&D expenses, and gaining economies of scale.
- 3) Being able to transfer professional know-how from one company to the other. Lannet is regarded as the better of the two companies in R&D, while Madge holds an advantage in the area of marketing.
- 4) Decreasing competition
- 5) Increasing the range of products offered – expanding the variety of communications solutions
- 6) Obtaining a larger market share (Chiefly for Lannet line of products), which will establish the "Viability" desired by Lannet's international customers.

ASSESSMENT OF THE QUALITY OF THE STRATEGIC PLANNING OF THE MERGER/ACQUISITION

- 1) The acquisition process was carried out extremely rapidly, and this did not provide sufficient time for any in-depth examination. For better planning companies need to "Date", to feel each other, for some time before the merger.
- 2) The Madge team therefore was satisfied with a cursory inspection. Furthermore, Madge agreed to effect a thorough due diligence process only *after* the agreement had first been signed.
- 3) The per share price paid appears to be very high compared with both the market price and the recommended by the Madge team. It looks as though hubris (In the form of the over confidence displayed by the Madge managing director) may have caused the speed with which the purchase decision was made. In any event, the total consideration paid (US\$330M) was considerably more than the sum (About \$200M) that Lannet expected to receive (See also the class action brought in the USA on behalf of purchasers of Madge common stock, against Madge and its principals. The class action alleges the artificial inflation of Madge's stock prior to the Lannet acquisition).

It should be noted that where an acquisition is effected via an exchange of shares, irrespective of whether or not the buying company undertakes a proper process of due diligence, the company being acquired should itself undertake a due diligence of the buyer. However, Lannet did not do this.

- 4) No assessment was made of the difficulties that could be expected in implementing the merger. In particular, no examination was effected of the differences in Corporate or organizational culture or the need of the acquired company to retain elements of autonomy. This is essential in order to plan the integration process and choose the integration approach.
- 5) No dynamic evaluation was made of the likely reactions of competitors in the market or of the moves likely to be effected by customers, suppliers or distributors.

ANTICIPATED DIFFICULTIES – DIFFERENCES IN NATIONAL AND ORGANIZATIONAL CULTURE**Corporate culture issues**

Although Madge refers in its prospectus to anticipated difficulties, it conducted no fundamental investigation into two key matters: The differences between the two companies' organizational cultures and the need (Which was exceptionally strong at Lannet) of the acquired company and its principals to retain its autonomy. It has to be remembered that Lannet was not a losing money enterprise and that the management of that company had proven its ability to develop new products and run a successful business. An analysis of the differences in corporate/organizational culture has been made for the purposes of this case, based on the seven dimensions of culture that have been identified and found valid in several research studies conducted by Chatterjee, Lubatkin, Schweiger & Weber (1992) and Weber (1996) . The table 6 provides a summary of each dimension, grades the two companies in terms of these dimensions and assesses the degree of the differences between them.

<i>Cultural Dimensions</i>	<i>Lannet</i>	<i>Madge</i>	<i>Cultural Differences</i>
<i>Innovation & Action Orientation</i>	<i>High</i>	<i>High</i>	<i>Low</i>
<i>Risk Taking Attitude</i>	<i>High</i>	<i>Medium</i>	<i>Medium</i>
<i>Integration and Lateral Interdependence</i>	<i>Low</i>	<i>High</i>	<i>High</i>
<i>Top Management Contact</i>	<i>High</i>	<i>Low</i>	<i>High</i>
<i>Autonomy in Decision Making</i>	<i>High</i>	<i>Low</i>	<i>High</i>
<i>Performance Orientation</i>	<i>High</i>	<i>High</i>	<i>Low</i>
<i>Reward Orientation</i>	<i>No Data</i>	<i>No Data</i>	<i>No Data</i>

Table 6 - An Analysis of Corporate Culture Differences: Madge and Lannet

To summarize, significant differences in corporate culture exist between Madge and Lannet. Taken with the need for retained autonomy on the part of the acquired company, this suggests that difficulties could certainly be anticipated during the process of effecting the desired synergy.

National Culture Issues

National culture differences play a significant role in the merger of Madge and Lannet. The cultural differences between the British and Israeli culture may be assessed using the four dimensions of Hofstede (1980): power distance, uncertainty avoidance, individualism and masculinity.

	<i>Power Distance</i>	<i>Uncertainty Avoidance</i>	<i>Individualism</i>	<i>Masculinity</i>
<i>Great Britain</i>	35	35	89	66
<i>Israel</i>	13	81	54	47

Table 7 - Hofstede's National Cultural Differences Between England (Madge) and Israel (Lannet)

These findings, drawn from international management literature indicate large national cultural distance on all dimensions. Thus, problems should have been expected in the case of the merger between the two firms. This is contrary to the opinion of Lannet's managers that there are not too many national cultural differences. For example, if one examines the dimension of power distance, the large gap in the case of international mergers may contribute to behavioral problems of acquired firm managers. These behavioral problems lead to: reduced commitment to the success of the merger, and a lower degree of cooperation between the acquired and purchaser management teams. It has been shown, that stress and negative attitudes are caused by national cultural differences. In this case, the British expected a higher degree of obedience by subordinates than the Israelis did.

In summary, there are significant cultural differences that inhibit the impact of the synergies expected to evolve.

INTEGRATION APPROACH, RECOMMENDED STAGES AND THE IMPLEMENTATION PROCESS

It has been demonstrated that, where there is high potential for synergy accompanied by anticipated difficulties in implementation, the "symbiosis approach" is the preferred method for achieving integration. According to this approach, one should move forward cautiously, with progress and changes affected in accordance with developments occurring. During the initial stages, one has to preserve the character and identity of the acquired company and proceed only with essential minimal changes. Following the initial period the two firms become acquainted with each other, enabling the acquired firm (e.g. Lannet) to develop self-confidence.

The stages for the symbiosis approach are:

- 1) Creating a gate keeping structure to protect the distinct identity of the acquired firm.
- 2) Nurturing the acquired firm.
- 3) Implementing adjustments needed in both firms.
- 4) Starting voluntary interactions gradually.
- 5) Trading operating responsibility for strategic control.
- 6) Amalgamating the firms.

THE INTEGRATION PROCESS AND ITS CONSEQUENCES

The students are asked to compare the aforementioned stages to the actual activities taken in the merger of Madge and Lannet. Very quickly they will discover that there were some major deviations. The culture and operating procedures of Lannet were not kept. There was no gate keeping structure. Madge's managers did not wait or encourage the initiation of voluntary interactions by the acquired firm.

As a matter of fact, Madge has moved directly to step 6, in the hopes of absorbing Lannet completely. Only after the merger was pronounced a failure, did Madge separate between the two organizations – a separation that should have been part of step 1. The results of this shortcut

are outlined in the case and the students are asked to give several examples of violations of the process by Madge. Furthermore, this shortcut brought about the resignation of key senior managers of Lannet, including the founder and CEO. The Lannet people started to fight for autonomy undermined Madge's initiatives and hurt the R&D capability of Lannet. This capability was one of the main reasons that Madge acquired Lannet in the first place.

As Robert Madge confessed in an interview "... Lannet was a large company comparable to ourselves with nearly as many people. After about six months it became clear that our sales were not reacting well as a joint company. We had a lot of problems in putting the company together. We couldn't get a clear, focused strategy that everybody bought into. Most acquisitions fail. If you can't get positive momentum fairly soon, you're much more likely to fail, especially when the two companies are fairly similar in size. Because we couldn't get positive market momentum, all the differences in opinion broke out, and it became that much harder to make it work together" (Tennant, 2008).

CONCLUSION AND FUTURE IMPLICATIONS

Although Morosini et al. (1994) reached the conclusion that national cultural differences are always beneficial to an acquisition's performance, we argue based on the findings of our study that each M&A requires a "tailor-made" post-acquisition integration approach as well as its appropriate implementation. This is because an inappropriate post-acquisition integration approach and/or an inadequate degree of implementation can negatively affect acquirer performance.

In addition, according to Pablo (1994) if the acquiring firm imposes all its practices on the acquired company, many of these practices are likely to be incompatible and undermine post-acquisition integration efforts, and can eventually result in negative performance on the acquiring company's part. Conversely, if the acquired firm is granted an excessive degree of autonomy, it can take several years until the underlying synergies are realized, which can have a negative effect of acquirer performance. Based on the results of our case study of Madge & Lannet merger, we assume that it is insufficient to consider the corporate (organizational) culture differences between the acquirer and the acquired company in isolation from the national culture dimensions when examining how these differences affect acquisition performance.

Furthermore, Tarba (2009, Unpublished dissertation) found that there is a significant difference in the extent of the fit between the integration approaches that should be and were actually adopted by the acquirers according to the Haspeslagh and Jemison's model (1991) and based on a large sample data regarding M&A deals in Israeli hightech industry between 1990 - 2006: only 42% of M&A transactions in the sample show fit, whereas 58% M&As did not. This may be the reason for the poor performance of acquiring companies which did not adopt the integration approach required in each merger or acquisition according to the model of Haspeslagh and Jemison (1991), based on corporate culture differences and the synergy potential between the combining entities.

Another issue raised in the present research pertains to the relationship between national and corporate culture and the way in which it may affect M&A performance. Although sharing some

definitions and terms, authors writing about national and corporate cultures refrain from stepping on each other's turf, thereby overlooking opportunities for cross-fertilization. The in-depth examination of the Madge & Lannet merger case study presented here provides ample opportunities for systematic research on the similarities and differences between national and corporate cultures, their interrelationship, and their similar and different impacts on conflict in international M&As.

Finally, the case results suggest that executives of the acquiring firm should pay as much attention to the choice of level of integration and cultural dimensions during the pre-merger search process and post-merger integration as they do to the effects of national and corporate culture differences. The challenges associated with the ideal integration type, and the ability to successfully implement the intended integration approach should be considered during all stages of the M&A, including screening, planning, negotiation, and the interventions that take place during the post-merger integration period.

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Will be provided upon request.

DESIGN AND DEVELOPMENT OF AN INFORMATION SYSTEM TO SUPPORT DECISION MAKING IN PERENNIAL CROP PLANTING

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Purpose: This paper reports on the design and development of an information system to support decision processes related to perennial crop planting.

Design/methodology/approach: Secondary data have been collected through literature review. Users' requirements were elicited through interviews. Entity Relationship Diagrams (ERD) and Data Flow Diagrams (DFD) were used for design and modeling of the system. A relational database management system (Microsoft Access ©) was used for implementing the system. Interviews and questionnaires were used for end-users' evaluation of the developed system.

Findings: Domain knowledge has been elicited including theoretical concepts of economics of agriculture and perennial planting specifics. The system keeps data about soil, crops sowed in different years, as well as financial data concerning costs and crop sales. Moreover, a module supports decision making in perennial planning. The system is also capable of producing a number of reports which can significantly enhance decision making.

Practical implications: The developed system support operational and strategic processes in perennial crop planting including improved planning, control mechanisms and decision making support in perennial planting.

Originality/value: The described information system is the first information system described in the literature to combine agronomic and financial decision making in perennial crop planting.

Keywords: agriculture, information systems, agribusiness software

INTRODUCTION

In recent years a number of projects using ICT have been initiated to enable rural populations to access information on agricultural related issues (Gordon and Dakshinamoorthy, 2006; Paul et al. 2004; Scornavacca, 2006). However, it seems that research and development of IS that support decision processes in agriculture (Kuflik et al., 2007; Rydahl et al., 2003) is under-represented compared to the economic impact of this sector. In the European Union, the utilized agricultural area in 2007 amounted to more than 182 million hectares; more than 12 millions of people were employed in agriculture; in 2007, the output of the agricultural industry equaled 355 810 million euros (European Commission, 2009). Agriculture is estimated to supply 4% of the world GDP in 2008 whereas in 2007, 40% of the labor force was estimated to be occupied in agriculture (CIA, 2009).

Agriculture is one of the main branches of the agricultural sector which produces foodstuff for the population as well as raw materials for manufacturing processing industries (Minakov, 2005). Agriculture comprises of the crop sector and the livestock sector. The focus of this paper lies on the businesses in the crop sector, and more specifically with regards to perennial cultivation. This business sector is characterized by high capital intensity and low turnover of

capital, which makes it a less attractive option for investment compared to other industries and frequently requires state intervention for development (Minakov, 2005). Furthermore, the climate, a highly uncontrollable and unpredictable factor, is very influential to yields formation. In general, there may be many exogenous factors which could severely affect the production (Ternovih, 2006).

The traditionalism, unpredictability and low profitability of agricultural enterprises may be the hindering factors in the development of IS applications in agriculture. However, the complexity of running an agricultural business calls for software tools that can support aspects of operational processes. "Decision making and analysis in a modern agribusiness firm is multifaceted, complicated, sophisticated, and dependent on operational, financial, marketing, and planning activities" (Litzenberg, 1992). Furthermore, for a business so risky and unpredictable, it is especially beneficial to rely on an information system which would endorse decision-making and assist the enterprise management. Agricultural businesses rely on large data sets concerning the crops sowed, their utilization and sales. Better record-keeping and improved control on company operations are potential sources of significant money savings.

This research describes a system solution which addresses the decision support processes in the crop sector. It investigates into the range of possible information that can be helpful for decision-making in agriculture. It outlines the main data needed to be stored in such a system, as well as the information which can be produced using the data accumulated. Furthermore, this research draws conclusions as to the effects on the decision-making practices which the properly implemented system should create.

The research aims to study the information needs of agricultural enterprises in the crop sector and to outline possible solutions and lines of development in this area. Towards this aim, four objectives have been set. These include:

1. To review the nature and particularities of the businesses in question
2. To determine the useful data, which is feasible to be stored and processed
3. To propose possible output that the system would be capable to produce out of the data collected
4. To examine the system's potentials on decision making.

The value of the research relates primarily to its knowledge contribution to the field of information systems in agriculture. The research can be of further practical value since it may serve as a starting point for a comprehensive agricultural information system. Finally, it offers immediate practical value since the system proposed in the research can be implemented in an agricultural enterprise and bring instant positive impacts onto its functioning.

DOMAIN FUNDAMENTALS

In principle, an agricultural enterprise shares common features with other businesses; however, it has some distinct differences in the way it operates. Therefore, in order to gain insight into the nature of the business in question, as well as to interpret the developed system

and the information it requires and produces, it is important to understand this subtle, yet crucial particularities of the way agricultural businesses function.

In agriculture, land is one of the main assets and resources for production. The land of the enterprise is typically divided into fields, although it may be subject to further divisions. Compared with other resources, given proper usage, land does not depreciate, but in fact preserves its qualities. Results of agricultural production are dependent on the soil and climatic conditions. In other words, the quality of land and the content of nutrients can influence the harvest greatly (Minakov, 2005). Special care needs to be taken in order to sow the suitable crops on the land available. Thus, the described system has a module devoted to soils which would be helpful to the agronomist, as well as all other users in the sense that it would help to identify better fields in terms of nutrients.

The production cycle for agriculture is seasonal and not continuous, but rather intermittent. The seasonality has a significant effect on the way production processes are organized. Understanding of the crops production processes allows gaining insight into the type of information required at different stages.

The typical agricultural year starts with fields being ploughed and seeds being sowed (UK Agriculture). Although fields may have a variety of uses such as being rented out, their primary utilization is for planting crops. Crops sowed can be either annual or perennial. Annual reproduction means that a crop completes its life cycle in less than one year. Annual crops give gross yield every year, but need to be sowed every year, too. Perennial reproduction means that once sowed, the crop will reproduce itself for the next years (New Mexico State University). The exact timeframe is individual for different plants and depends on the weather conditions. Perennial crops stay on the same field for many years and are typically more profitable, but they do not give any harvest in their first years. Due to this fact, part of cultivated land is usually planted with annuals such as wheat or rye in order to yield income balancing current expenses.

Moreover, there is a widely used practice known as intercropping which should be taken under consideration when designing an information system in this domain. Intercropping is the agricultural practice of cultivating two or more crops in the same space at the same time (Wikipedia, 2008). Since the perennial crop doesn't yield anything for at least one year, it is recommended to combine it with an annual crop so that to leverage expenses. This way, there will be some gross yield from the annual crop while the perennial crop is not ready to give harvest, and later on the perennial crop will take over. Intercropping is economically effective since it makes possible to use the fields and get some return from them each year rather than sowing a perennial and waiting for a few years until it starts giving a return.

For this stage, the objective of the system is to provide comprehensive information about the utilization of all fields in a given year: it must show in a clear way what crops are cultivated on all the fields belonging to the enterprise. The database associates fields with crops sown in a many-to-many relationship, contains information whether a specific plant is annual or perennial, as well as provides for practice of intercropping and distinguishes field areas which are used for purposes other than growing crops.

Keeping this information allows to associate land and its uses and thus to improve clarity and permit unambiguous record-keeping. It is worth noting that even such straightforward

information as the location and amount of crops sowed on each field is often not available to the decision maker. Access to such data promotes better accountability and control, whereas lack of such fundamental data inhibits further analysis.

Seeds grow throughout a long period, with irrigation, pesticides or fertilizers applied if necessary (UK Agriculture). At this stage it becomes obvious which seeds have sprouted and the management starts making the first forecasts. In order to help them, the proposed system provides assistance in planning of revenue.

At the end of planting season, the crops are ready to be harvested: they are collected, dried, sorted and have weed admixtures removed (UK Agriculture). At this point it becomes possible to calculate the gross yield: the total amount of seeds that is collected from a crop in harvesting in a certain year. The actual gross yield is not the same as the sum of gross yields of the crop from all fields where it has been harvested. After drying, there is always shrinkage of total seed weight. By comparing the weights before and after drying, the manager can see if the loss is typical (e.g. he/she knows that the seeds were wet and thus the actual gross yield is much smaller) or if there is a discrepancy which needs further investigation. Additionally, in order to account for deviations between crops from fields of different sizes, yield capacity is computed by dividing the gross yield by the total area. Yield capacity is the amount of crop produced by a unit of area (Hlebutin E.B., 1978).

In relation to this stage, the system in focus is capable of storing data about gross yields and computing yield capacity. Gross yield is one the most basic indicators of the efficiency of any agricultural enterprise in the crop sector (Minakov, 2005). The value of gross yield in decision-making is that the user immediately can estimate what crops have had the greatest volumes and what crops have given poor harvests. High-yielding crops are more predictable and provide guaranteed yield and thus revenue assuming that they are not produced at a loss. To summarize, knowledge and comparison of crops in terms of yields promotes better planning for the next sowing season.

Finally, it is important to underline the fact that an agricultural business, contrary to self-sustained home farming, is a profit making organization; that is, crops ought to be sold at prices yielding higher profits, even though a portion of the crop may be used as input to the production process (seeds, forage, organic fertilizers etc). Although gross yields and yield capacity should be taken into consideration, financial information should be of primary importance to the upper management of such an enterprise. For this reason, the developed system contains a special module devoted to financial part of the business.

The data stored in the module is related to costs and prices of the crops, that is, financial information which affects the profitability of the enterprise. In other words, availability of data about costs and sales (primarily the selling prices and corresponding quantities) would enable the management to rank crops on their profit-making potentials. Based on the data, the system produces a number of reports which would permit the higher management to distinguish between crops based on a variety of characteristics with the main aim of identifying profitable and unprofitable lines of development.

DESIGN AND IMPLEMENTATION OF THE SYSTEM

Mainly, the system solution is based on the economic measures proposed by the research made into the economics of agriculture and strives to incorporate the ideas and economic indicators into an information system. Domain knowledge has been retrieved based on theory of economics of agriculture. In order to understand the nature of the business, its activities and information requirements, a number of information gathering techniques such as interviews, existing documents analysis and personal observation had to be used. A number of small agribusinesses have been observed, and employees ranging from agronomists to upper management have contributed their knowledge and judgment. Due to low availability of theoretic information on this subject, to a large extent implementation decisions were adopted based on personal observations of the functioning of the businesses in question.

Following is the description of the system divided into modules.

Fields and their uses (main module)

The main module of the system is concerned with keeping records about the main operations of the enterprise. It provides a graphical interface in order to enter the data into the database and performs the necessary checks to ensure that the data is complete and correct. The core of the system consists of two database tables: one for fields and the other for crops. The former consists of information about fields which does not change from year to year: field number, area, and cost of field. The Crops table is another fundamental table of the database which stores information about the "product line": different crops which are cultivated in the enterprise. It specifies the name of the crop, its genus and species in Latin, and the reproduction of the crop (whether it is annual or perennial).

Furthermore, for each year the system is capable of storing the following information: crops and intercrops cultivated on each field, together with the area occupied and the gross yield. Any other utilizations of the field are also stored. On the whole, the system represents comprehensive information on the uses of all fields in all years in an orderly way. Furthermore, total used and unused areas for the year are calculated so that the user can immediately see without any further computations whether the field has been fully used. Provided the concrete gross yields have been supplied, the module computes the yield capacity of each crop at each field. This feature makes it possible to identify fields which are not suitable for the crop, if the user notices that yield capacity on a specific field is much lower than on the others.

From the system, it is possible to obtain the total list of fields, including their cumulative area, total cost and total area occupied under crops. From this report, the user can get a perception of the land available for the enterprise. In addition to this, the list of crops can also be generated so that the user can get an idea of the "product mix" of the enterprise.

The module can also produce lists of unoccupied areas or fields which are not used in a given year. This information can be of interest for the managers and the agronomist. Having free areas is inefficient, especially if significant plots are left unattended. Moreover, this information can be useful in the sowing period when certain fields have already been sowed with some early crops, and decisions about the rest have to be made. Likewise, it can be helpful to see the fields not used in the worst case scenario, when there would not be enough capital to sow all the fields. In

such pessimistic case, it is at least advisable to change crops locations and make sure that no fields remain uncultivated for more than 3 years.

Soils

Whereas it is difficult to predict the climate, the information about soils, another significant external factor, is possible to be obtained in the course of scientific expertise. Soil samples should be taken from fields and results should be stored in a system. Based on the findings, the quality of soil can be estimated. Information about the acidity (pH), content of humus, potassium, phosphorus and texture of soil enables quicker, more thoughtful judgment and decision-maker's insight when deciding which crops to grow on a field. Knowing the physical characteristics of each field, an agronomist can make better decisions about the crops which should be cultivated on a certain field: certain crops would not grow on highly acidic soils; others give better yields on soils rich with phosphorous etc. Such information would also permit to identify crops which are not appropriate for sowing on a field. Moreover, it would be possible to identify better fields and sow them with crops which yield highest profits. At the same time, if someone wants to rent a field from the enterprise, other things being equal, perhaps it would be wiser to rent out a worse field. Obviously, an information system presents the accumulated data in a way which facilitates further analysis of soil and speeds up interpretation of data- for instance, by using color codes or by computing average values.

Forecasting

This module is helpful to estimate sales and revenues early in the summer when the actual data is unavailable for analysis. It contains the minimum data which can be forecasted in order to make the estimates. Using this module allows the managers playing with the data. Working with this module happens in the following way: in a certain year, the estimates are made for each crop cultivated by the enterprise. For estimates it is easier to predict yield capacity based on historical data. Although the fields are not homogenous, generally they should not vary much in yield capacity in a single enterprise, and estimates are usually made in this manner. Therefore, the user only has to enter the estimated yield capacity of the crop and the price the crop is expected to be sold. The module then computes the total area occupied by the crop and displays expected gross yield and expected sales. It also shows the cumulative expected sales. Working with this module, the user can immediately see effects of various prices or yields on the total expected revenue.

Another feature of this module is that it can compare the projected data with the actual outcomes thus permitting to assess the accuracy of forecasts and hopefully assist the forecaster in future planning. The report produced compares actual yield capacity with the planned, and the resulting gross yields. It also compares the planned price with the average price at which the crops have been sold in the chosen year. Moreover, it compares the maximum expected sales with the maximum possible sales under these conditions. Naturally, the maximum sales may not be achieved, but they indicate the maximum possible revenue from the crop. Performing such comparisons is necessary for any forecaster who would like to improve and upgrade his skills; analysis of previous deviations becomes the basis for future planning (Ternovix, 2006).

Finance

This module is devoted to the economic data and is most useful for assessing enterprise's financial performance. For each year, the data stored per crop includes the actual gross yield and the cost. At the present time, it is envisioned that the cost is imported from the accountants' data. The factual cost is calculated at the end of the year based on the results of accounting. While it is not available yet, it is acceptable to enter the planned or estimated cost. Besides, the module contains information concerning the sales of a crop in a particular season: dates, prices and quantities. The sale may not happen at the year when the crop was harvested; price is determined by the market conditions and may vary, especially if the crop is sold over a long period of time.

This module also records usage of crops other than sale. As it was discussed in the overview of agriculture, the seeds as the final product can be further used as an input. For instance, they can be used for sowing in the next season. The enterprise does not receive a profit on these seeds, yet it can not be said that it is a loss or these seeds are unsold and thus available.

On the whole, from this module the user can find comprehensive information on the uses of all harvested crops in all years. In order to minimize risk of theft, the module is also capable of comparing the cumulative gross yield (that is, the sum of gross yields of a crop from all the fields at the time of harvesting, before they were sent into drying) versus the gross yield retained after drying. Another feature is that it shows the amounts of crops which are still available.

Rankings

Rankings module uses data collected by other modules, primarily the financial module, and computes various indicators with the aim of comparing and analyzing crops in great detail. The module would definitely be indispensable in the process of planning since it gives a complete picture of all the crops. It is possible either to rank all the crops according to various factors, or to see complete information for each crop, or to see the information for the enterprise in general. Following is a list of indicators which are computed and permit comparison per crop.

- Actual yield capacity is computed by dividing actual gross yield by the total area occupied by crop. It shows how much quintals one hectare of land sowed with this crop has produced. Ranking crops according to yield capacity permits the user to see what crops are promising because they grow best and yield highly on the soils of the enterprise and what crops yield poorly and hence should be considered to be replaced. Although some crops may not be too profitable, a stable high yield capacity diminishes the risk of being affected by poor harvest. The enterprise should always consider sowing some of its fields with high-yielding crops provided they are at least breaking even. Actual yield capacity is one of the fundamental ratios in relation to crop planning.
- Cost: obviously, crops that are the cheapest to produce may not bring high profits, yet given the limited resources of the enterprise, investment in too many expensive crops may not be feasible and subsequently it would have to diversify with some cheap crops in order to occupy all its area.

- Total revenue is the total amount of money received by selling the crops. Crops yielding high total revenues bring in more cash to the enterprise. A stable revenue growth, even if the profits are stagnant, is attractive for investors and may facilitate obtaining loans.
- The level of saleability is an important ratio showing what percentage of actual gross yield has been sold. Enterprises should strive for a high level of saleability as it is the sold crops which bring in profit. There is no sense to sow a crop with enormous gross yield but which nobody wants to buy. Seeds are not perishable: they can be stored for a number of years, yet waiting too long for sales may negatively affect the cash flows. The agribusiness, especially if it has undertaken a loan, may not afford to wait for payback on its investments for long periods. Main factors affecting saleability are the demand for the seeds, the amount of seeds used internally, losses in the course of production, storage and transportation. In order to maximize and improve saleability, enterprises should improve production efficiencies and produce higher-quality seeds so that a smaller quantity would be set aside. The level of saleability normally does not reach 100% as there are always some seeds used internally (Minakov, 2005). Although consuming own production is necessary, it may probably not make sense to sow crops which would yield just enough to be sowed next year. On the other hand, highly demanded seeds should be focused at.
- Profit is definitely an important indicator which shows how much money is left after costs are deducted from revenues. In other words, profit is how much money the crops bring to the enterprise. Logically, the enterprise should identify and focus on the crops which bring consistently high profits. It must be mentioned that seeds set aside for further use etc should not be counted as a loss together with seeds which have not been sold yet. They are investments, and it can be viewed that the enterprise paid for them at their cost because otherwise, it would have to buy seeds from somewhere else.
- Profit per hectare facilitates the comparison between different crops. One crop may have a higher profit because it simply occupies a much bigger area. This ratio smoothes the differences in profit caused by different areas occupied, and permit a more unbiased comparison of them. When deciding which crops to sow, it is advisable to cover larger areas with crops capable of bringing more profit per hectare.
- Payback on expenses is a ratio generally used for enterprises which trade at a loss which is not uncommon for agricultural businesses (Minakov, 2005). This ratio is computed by dividing the total revenue by the total cost. It shows what percent of expenses is covered by the revenues. In other words, the amount of revenue per unit of resources consumed becomes evident from this ratio. The ratio higher than 100% indicates that the crop is profitable. The enterprise should only choose cultivate crops which pay off their expenses. In some cases, there government may subsidize production.
- Gross production per hectare of land is the indicator which assesses the economic efficiency of land. It is computed by dividing the total cost of the crop by the total area occupied by it and therefore shows cost of crop per hectare occupied. It is considered that the land is used effectively if it produces high-cost crops. Sowing with cheap crops is considered to be not good in the term of land resources because the same resources could have been used to produce more costly and usually profitable crops. Nevertheless, the

enterprise may not have the financial resources to sow all its land with the most profitable crops. Comparing the cost and profit of a crop per hectare, it would be possible to distinguish certain "best value" crops and maximize the profit received from the land available.

- Yield on land investment helps to assess the economic effectiveness of land. It is expressed as a ratio of cost of gross production to the cost of land occupied by the crop and shows to what extent the land is used to produce costs in monetary value (Klimentova E.A., Dubovitsky A.A., 2008).

Implementation and User Acceptance

There are no off-the-shelf software products in the market satisfying the required functionality for the system, as described above. Existing software packages support crop-related data, crops yield capacities and other agronomic characteristic. There also exists certain accounting software which facilitates creating invoices, calculating payroll and keeping the ledger. However, there are no applications tailored for agriculture which would deal with the financial part, and more specifically, which would permit comparison of crops based on financial indicators. For these reasons, in-house development was chosen which is not surprising as the business in question is so specific that it would be difficult to tailor an existing application for its purposes.

Design and modeling for data and processes have been addressed by an Entity Relationship Diagram (ERD) and a Data Flow Diagram (DFD), respectively. Figure 1 presents the Entity Relationship Diagram and Figure 2 presents the Data Flow Diagram. Based on user requirements, it was decided that the system should be implemented through database management software (DBMS). After examining some packages, the final alternatives singled out were Microsoft Access and Apache Derby. Advantages and limitations of both packages were examined thoroughly. In conclusion, Microsoft Access has been selected as it is a more appropriate tool for the task at hand. The system has been implemented and tested. For practical purposes, a detailed technical analysis is omitted although a demonstration is available. The system has been evaluated by end users. Some of the resulting improvements on business processes are listed in Table 1.

CONCLUSION

The described information system has introduced positive effects on a number of aspects. At the operational level, it provides effortless ad hoc retrieval of complete data, prompt distribution and sharing of data, as well as the benefits which most effective information systems should enable: automatic calculations and means of effective input and functional and appealing output.

Moreover, the developed system contributes towards many corporate objectives. This is even more important since the system was developed to assist higher management and the enterprise as a whole. It was not developed simply to automate processes and make them more effective or keep records. The impacts of the new system reach far beyond that.

In fact, the most challenging task in the sowing season is selecting the suitable crops so that to maximize the profit using the limited resources available. From the agricultural point of view, the structure of the sown area should provide for stable yields of high quality production and

better soil fertility, from the organizational point of view – for compliance with the specialization of the business and effective usage of the productive resources, and from the economic point of view – for maximization of profit from the unit of land (Ternovih, 2006). The rankings generated by the system permit the upper management to analyze crops from different perspectives: in terms of yield capacity, cost and profit. The developed system creates the information which can help the decision-makers to use the available resources to the best possible extent. Through analyzing the records kept through the years, it becomes feasible to choose best fits between the fields and the crops.

The system contributes to improved control mechanisms: availability of records about the gross yields reduces risk of theft going unnoticed, be that in the time of harvest, or later, when the seeds are stored in the warehouse. Any inconsistencies in the gross yields of the same crop in different fields would also be observed.

In general, the presence of factual records improves control and supports the operations of any enterprise. By analyzing yearly data concerning individual crops and the enterprise in general, it becomes possible to identify trends, threats and opportunities early in time and act accordingly. The availability of timely, up-to-date information is a source of time savings and definitely enhances cooperation with partners and clients. Besides, the system provides invaluable assistance when it comes to financial planning with the help of the forecasting module.

Finally, the positive extent of improved decision making can be incessantly speculated; the system developed provides a decision-making framework which can potentially contribute to better profits and cost savings.

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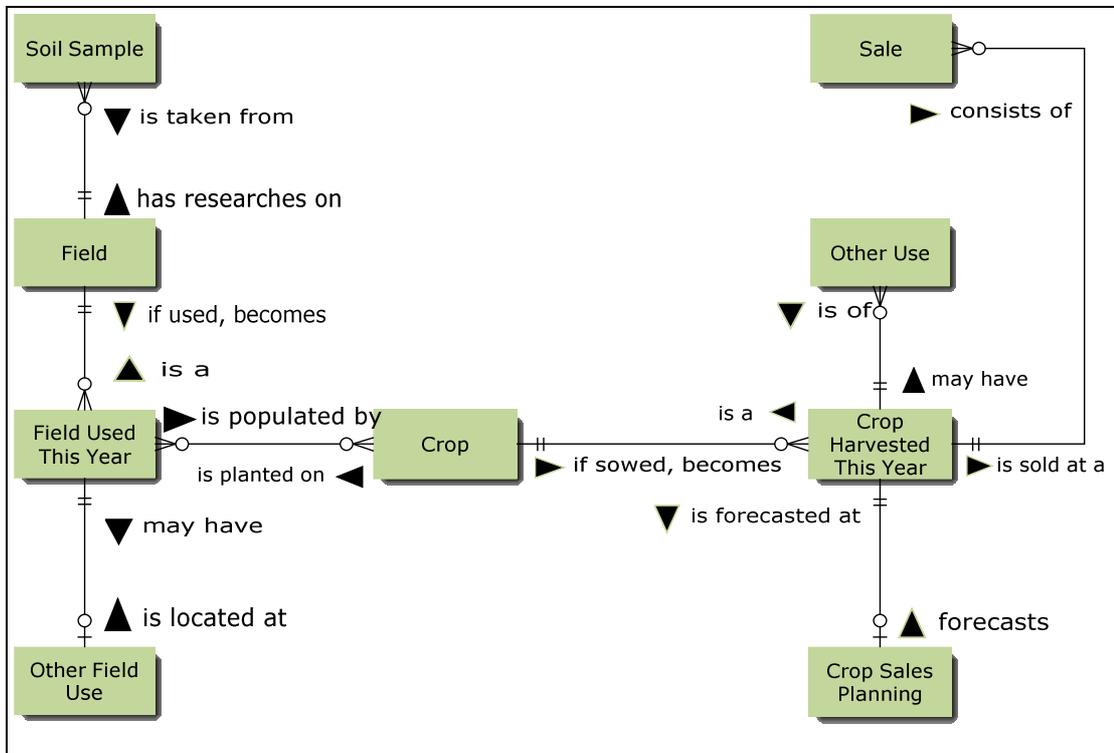


Figure 1: Entity Relational Diagram

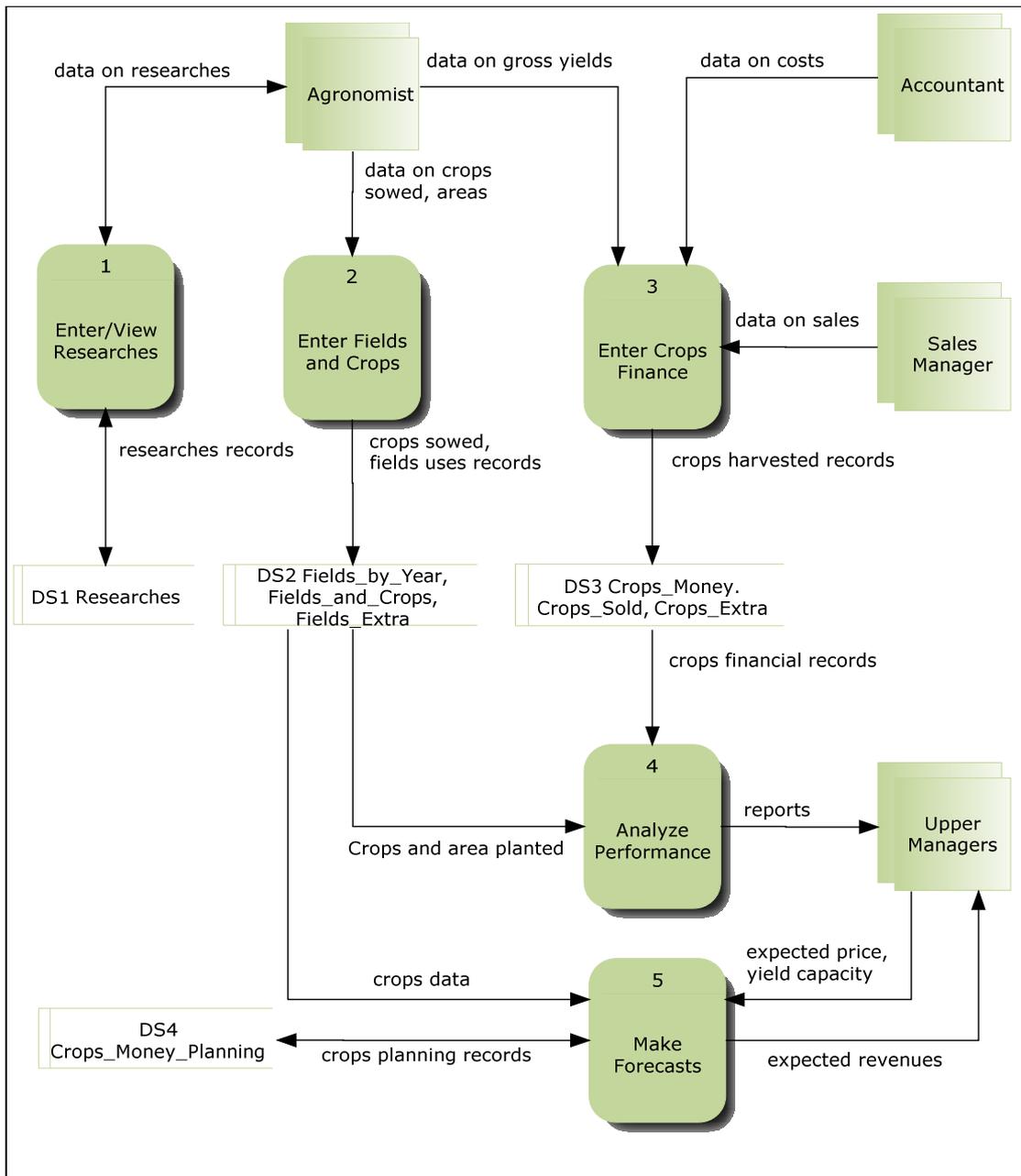


Figure 0 Level 1 DFD

<i>Speeding Up a Process</i>	√	<i>Faster calculation of totals, yield capacities etc</i>
<i>Streamlining a Process</i>	√	<i>Duplicate processes eliminated. Easy to follow processes have been created</i>
<i>Reducing Errors in Input</i>	√	<i>Improvements via table validation and forms with fields checking for values</i>
<i>Storing Complete Data</i>	√	<i>Comprehensive and unambiguous data is stored</i>
<i>Reducing Redundant Data Storage</i>	√	<i>One database: no need for multiple copies of files</i>
<i>Reducing Redundant Output</i>	√	<i>Reduced risk of erroneously printing outdated files</i>
<i>Improving Integration</i>	√	<i>Data from fields and crops is used as a basis for Crops Finance and Crops Forecasts. Reports contain integrated data</i>
<i>Easy Data Retrieval</i>	√	<i>Data is easy to find and is in a distributable format</i>

Table 1: Feasibility Impact Grid. Process Objectives.

ATLASSIAN: BUILDING A 'BORN-GLOBAL' COMPANY FROM AUSTRALIA

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Case synopsis: In February 2002, two fresh University of New South Wales IT graduates, Mike Cannon-Brookes and Scott Farquhar, founded Atlassian (after the Greek Titan Atlas), one of the fastest-growing technology ventures in Australia specialising in collaboration and development tools. Starting as a consulting business with total start-up costs of \$10,000, the founders realised that they needed an issue tracking tool enabling them to manage their own consulting projects effectively. This is how the idea of JIRA, Atlassian's first product, was born, soon to be followed by other products. By 2009, Atlassian had revenues of \$35 million (nearly all of them outside Australia), in excess of 15,000 customers in some 110 countries and nearly 200 employees worldwide, with offices in Sydney, San Francisco, Amsterdam, Kuala Lumpur and Poland. Throughout the years Atlassian remained highly profitable and privately owned with no institutional or venture capital investment and spent 40% of its revenues on R&D. The founders' ambition is to make Atlassian a \$100 million company with 50,000 customers worldwide. The main discussion points in the case are whether Atlassian's business model and entrepreneurial culture are further scalable in international markets and whether Atlassian should become more aggressive in its growth strategy.

Teaching objectives: The case allows the instructor to discuss a number of issues in entrepreneurship, strategy and general management in the context of a fast-growing global venture. Specifically, the instructor may wish to consider the following issues:

- The challenges of building a 'born global' IT company from Australia, where the broader industry and economic context is not conducive to international entrepreneurship;
- The process of entrepreneurship and venture success as a function of 'fit' between three drivers: the entrepreneurial founders, the opportunity and the resources they bring to bear on the venture;
- Atlassian's business model, its genesis, sustainability and scalability in international markets;
- Atlassian's strategic positioning and the strategic choices they made; and
- Maintaining a distinctive culture in a fast-growing company beyond the start-up stage.

INTRODUCTION

In late February 2009, Mike Cannon-Brookes and Scott Farquhar, co-founders of Atlassian Software, a global technology company, were sipping beer on the deck of their office in downtown Sydney. Only days ago Mike was chosen by the World Economic Forum from a world-wide pool of 5,000 candidates as one of the 230 Young Global Leaders for his professional accomplishments, commitment to society and potential to contribute to shaping the future of the world. Mike and Scott, both in their late 20s, had all the reasons to feel proud that their efforts had been validated. Starting in 2002 as a consulting business, the founders, then fresh IT graduates, soon realised that they needed an issue and task tracking tool enabling them to

manage their own consulting projects effectively. JIRA, Atlassian's first product, was soon to be followed by several other team collaboration products. By 2009, Atlassian had become one of Australia's fastest growing technology ventures, had revenues of \$35 million (nearly all of them outside Australia), in excess of 15,000 customers in some 110 countries and nearly 200 employees worldwide, with offices in Sydney, San Francisco, Amsterdam, Kuala Lumpur and Poland. Throughout the years Atlassian remained highly profitable and privately owned with no institutional or venture capital investment and spent 40% of its revenues on R&D. The company was equally well known for its transparent, vibrant and informal, yet highly professional culture. It received a sweep of industry and business awards (see *Exhibit 1* – Atlassian's awards), and in 2006, Mike and Scott became the youngest entrepreneurs to ever win the prestigious Ernst & Young's Entrepreneur of the Year Award for Australia.

Nevertheless, the current revenues and customer base were still a far cry from the founders' intent to grow a \$100 million company with 50,000 customers worldwide. As Mike and Scott pondered the future of Atlassian, they wondered whether they could scale the business in a way that did not diminish the creative vitality, enthusiasm, and customer focus that had got them so far.

ATLASSIAN'S EARLY YEARS

The Founders

Mike and Scott met in 1998 as recipients of the prestigious Business IT Co-op Scholarship at the University of New South Wales (UNSW). The program was set up by industry and the UNSW to provide financial reward and industrial training for undergraduate students in the disciplines of Commerce, Science and Engineering. UNSW Co-op Program scholarship holders received a tax-free scholarship of \$53,600 for a four-year degree and \$67,000 for a five-year degree as well as structured industrial training (between nine and eighteen months), gaining valuable work experience with up to four different sponsor companies. In addition to exceptionally high entry requirements based on scores from high school, Mike and Scott were selected on the basis of their motivation, leadership potential, involvement in extra-curriculum activities and excellent communication skills. Mike commented on the program²⁴⁰:

There were a very small number of places, \$15,000 a year tax free, which when you're at University is a lot of beer. And it requires a more American-style large application for that they cull down with interviews to get in. ...Everyone who gets in is very smart, very ambitious. You have to do computer science subjects and information systems subjects as well as finance and accounting, and commerce. It is really supposed to be business IT, technical and non-technical. ...It was an amazing bunch of people, a really good environment and a really good time to do it. We started in 1998/1999.

Like many of the scholarship holders, Mike and Scott came from different backgrounds. Mike's father was a successful British banker whose career took him and the family around the world. Mike was born in the U.S. and attended an elite private school in Sydney. Scott came

²⁴⁰ Interview with Mike Cannon-Brookes and Scott Farquhar, 6 September, 2006.

from an Australian family of more modest means and went through a prestigious public school in Sydney before joining the Business IT program. Avid readers, both were influenced by high-tech entrepreneurial success stories of the likes of Microsoft and HP and the rhetoric of magazines encouraging young people to ride on the Internet boom and embark on entrepreneurial careers.

Soon after a positive start in the program Mike became bored and restless, largely due to one of his first internships with an industry sponsor who had given very little thought to how they would utilise the bright student more effectively. Mike began spending a lot of time working on an online book-marking start-up with another scholarship student. They realised that people used different PCs to store their bookmarks (at home, university and work), which in the end could become a nuisance. Once the founders had collected all of their favorite sites, they flipped the service around to provide an efficient search engine of user-contributed links.

Firmly believing in the idea's potential, Mike and his partner, still only in their late teens, made the controversial decision to drop out of the prestigious program. The founders turned the start-up (called Bookmark Box) into a "mild success" and contemplated raising additional funds to grow the business, but were eventually outcompeted by cash-rich and aggressive American start-ups. After nine months of operation the founders sold their company to an American dot.com, staying on for three months.

Following this initial foray into business venturing, Mike went on to work for another NASDAQ-listed research firm while enrolled in night classes, and Scott took the more traditional BIT route which provided job placements of three to six months with established companies. A key element of Mike's job was to evaluate the business prospects and viability of other Internet start-ups, during which time he learnt "a lot of lessons about how not to run a business"²⁴¹. His 18-months stint at the company proved to be an exciting time: he earned a decent salary for a twenty-one year old and traveled extensively to Singapore, Hong Kong, Malaysia and China, where the Internet was just exploding. The good life came to an end in 2001 with the dot.com crash, when the company started shutting down its Asian offices. As Scott still had six months to graduate, Mike resigned and went back to the university full-time to finish off the loose ends and "get a piece of paper".

The Opportunity

In late 2001, Mike and Scott sat down to flesh out the foundations of their venture. Unimpressed by what they had seen in the corporate world and pre-revenue dot.com start-ups, who appeared to be interested more in quickly gaining market share than having a sustainable business model, they hatched the idea of a venture underpinned by an entirely different philosophy²⁴²:

Australians definitely build real businesses. We don't have this build and flip mentality that the [Silicon] Valley has. Australians are typically very good managers because we are used to dealing with scarce resources in the true sense of the word.

²⁴¹ Interview with Mike Cannon-Brookes and Scott Farquhar, 6 September, 2006.

²⁴² Interview with Mike Cannon-Brookes and Scott Farquhar, 6 September, 2006.

Business is pretty simple. At some point we've got to have a product that people like and buy, and we've got to get more money when we sell it than it costs to make it. There are businesses that don't operate that way. There are some that need to lose money to grow, but we didn't have the resources to build one of those businesses, so we didn't.

We didn't have a formal business plan...we knew what we wanted to do, and we had a massive dose of common sense and reality.

By the New Year they were generating some cash flow with software service and consulting for a small Swedish company. Although the application server the company developed was, in Mike and Scott's judgment, 'excellent', the company had no real interest in customers resulting in poor support. So Mike and Scott set themselves up as third-party support experts for the server selling annual subscriptions and trying to make some money until they could carve their own niche.

In February 2002, the entrepreneurs moved into a simple office in downtown Sydney. They named their company Atlassian, after the ancient Greek Titan Atlas, the first person to fulfill the new venture's mission to provide legendary service while supporting the world²⁴³. With a modest initial start-up cost, total expenses of around \$5,000 per month and a steady average monthly consultancy income of \$18,000, they had enough funds and time to work on improving their own business processes, such as managing the flow of various leads and commitments. Once the entrepreneurs had the program – named JIRA – up and running, they quickly realised they found their niche and their first product. JIRA helped project managers monitor the progression and completion of individual tasks. It was by no means a novel concept – in fact, JIRA was addressing a problem that had been solved a thousand times over the years, with plentiful solutions already available. The first few copies of JIRA were sold to clients Mike and Scott knew personally.

At the time of JIRA's launch, enterprise software companies sold software that was 'heavy' – expensive (frequently costing over \$200,000), difficult to use and taking months or even years to deploy. On the technical side, industry analysts were becoming increasingly critical of enterprise software in large organisations, which largely failed to fully integrate and intelligently control complex business processes while remaining adaptive to changing business needs. Enterprise systems, they argued, brought high risks, uncertainty and a high level of complexity, and the way forward was to emphasise simplicity and efficiency in software development and implementation²⁴⁴. Purchasing in large user organisations was centralised with the IT department, who strived to ensure new software compatibility with the overall corporate network, and typically involved a protracted decision-making process. Customisation, service contracts and staff training added on thousands of dollars, and a trailing fee of 18% of the license fee for regular software updates was the industry norm. A significant proportion of these costs were built in from the sales model. A typical software company would have a worldwide network of distributors, and a direct sales force who sold in the vicinity of one in every one

²⁴³ Atlassian company website, www.atlassian.com/about accessed on 15 May 2009.

²⁴⁴ See Cynthia Rettig (2007), 'The Trouble with Enterprise Software', MIT Sloan Management Review, Fall, pp. 21-27.

hundred leads. Needless to say, such software was out of reach of small and medium-sized businesses or individual consumers.

With JIRA Mike and Scott broke away from the mold, creating a new market niche between free open source software and expensive commercial software ²⁴⁵:

We sold copies to a couple of our clients for \$800. The clients got back to us saying "It sort of does what we need, but it could use one or two other components". Being small, being keen, we fixed it up in a week and shipped them out a new version. They said "Great, now it does what we want". We sold ten or more versions to people we already knew. We were not looking at what competitors were offering; unless somebody asked for a change – or we identified a need for something among ourselves – it didn't get built in.

Committed to providing legendary service, the entrepreneurs strived to respond to customer queries within an hour. Not having any sales experience probably helped: they simply tried to answer their customers' queries intelligently and as quickly as possible. In an effort to break further away from competition, Atlassian adopted an open-pricing model. While the usual industry practice for enterprise software firms was to have an online form to fill in or a number to call for price quotes, the entrepreneurs did not believe in discounting, having differentiated pricing or giving credit terms to customers. They did, however, provide JIRA (and all subsequently developed programs) free of charge to non-profits and half price to academia.

As project management software was usually sold on a per user basis, enterprise software firms designed their systems with limited features and number of users. Atlassian, however, made very different choices. Atlassian's products could be bought by the actual user using a credit card and put onto a workgroup's machine. While in the early days configurability and scalability proved problematic, with further software development these issues were partially resolved, and a customer could run multiple projects on one higher-end version. Nevertheless, because Atlassian's software was so keenly priced, large users preferred to buy multiple copies for different functional departments or different cities around the world.

The entrepreneurs acknowledged their customers saw considerable value in their products, many of them admitting that Atlassian's sold their software so inexpensively that they would gladly pay ten times more for it. Mike and Scott reasoned²⁴⁶:

That's good to know. But in reality, this is probably classic supply and demand, because as long as we are at a price that is cheaper than what most people regard the value to be, we'll keep on selling heaps of copies and upgrades. If we can get 100 customers at \$5,000, that's much better than five customers using us at \$100,000. If one of them leaves, you're in big trouble.

Our pricing also lowers the cost of selling upgrades. If we talk to them from time to time, they'll buy it. A thousand bucks? No problem, here you go. But thousands of dollars – thousands of times – means than we have lots of cash coming in the door every year for free.

Atlassian's business model and funding

²⁴⁵ Interview with Mike Cannon-Brookes and Scott Farquhar, 6 September, 2006.

²⁴⁶ Interview with Mike Cannon-Brookes and Scott Farquhar, 6 September, 2006.

Atlassian's business model was based on a few simple principles. Mike explained the early thinking behind their venture²⁴⁷:

Our business is based on a few premises. One is that we foresaw – foresaw seems a bit glamorous, doesn't it – but we guessed that basically the price of software was going to keep coming down for a number of reasons. One, the price of producing software – although producing scalable software is still quite high – the cost of some componentry, tooling and building it has come down, maybe it's halved in the past ten years. So we could build stuff a lot more cheaply.

The second linchpin was related to Atlassian's choice of the global distribution platform, the Internet. Despite their young age, both founders were well-versed in the web-based tools and had the confidence that their fairly sophisticated customers would have little problem downloading software from the Internet. In addition, Mike and Scott figured out that they did not need salespeople to sell their inexpensive software, nor could they afford them²⁴⁸:

This has always been a common sense business. We couldn't afford to have huge spikes in sales, or pay commissions and huge annual bonuses to a rep in the hope of making the big sales during the year. To keep our cash flow going, we had to have small, incremental sales that came without big marketing expenses.

The entrepreneurs were also trying to leverage the trend to "software as a service" (or usage-based) business models to essentially convert the 18% maintenance trailing fee (the industry standard) into an ongoing 50% support fee.

As a result of its positioning, JIRA quickly gained a strong word-of-mouth following that spread across the IT community, enabling the entrepreneurs to raise its price to \$1,200. Mike and Scott's ultimate ambition was to create a mass-market enterprise software firm – a notion which, by their own admission, seemed almost oxymoronic:²⁴⁹

One of our goals from day one has been to build a \$100 million business with 50,000 customers. Why? Because that's a big number. Doing the math, we figured an average price of \$2,000. This fits with our concept of selling high-quality enterprise software, with high-quality service, at very low price. To build that sort of business, we had to go to the mass market.

The broader business environment's conditions in the early 2000s, particularly the dot.com bubble and the 9/11 terrorist attacks in the U.S., helped to define Atlassian's funding and growth strategies. In addition, the Australian context in general and a lack of venture funding in particular was not conducive to entrepreneurship (see *Exhibit 2* – the Australian Entrepreneurial Environment in 2001)²⁵⁰:

For IT purposes, we started the company right in the perfect storm. In 2002, everything was tight, budgets had been cut, and no one was buying much of anything. If we had gone to [potential investors] saying we have no experience in the industry but we're going to start a mass-volume

²⁴⁷ Interview with Mike Cannon-Brookes, 8 December, 2008.

²⁴⁸ Interview with Mike Cannon-Brookes and Scott Farquhar, 6 September, 2006.

²⁴⁹ Interview with Mike Cannon-Brookes and Scott Farquhar, 6 September, 2006.

²⁵⁰ Interview with Mike Cannon-Brookes and Scott Farquhar, 6 September, 2006.

software company and we're going to go into markets where there are already 10 to 20 other products, they would have shown us the door in 30 seconds – and probably rightly so from their understanding of how things should work.

We knew we weren't going to raise any money, so we focused on making cheap stuff that was really good. We were talking with a lot of people who still didn't have budgets. They'd say "I don't have the bucks right now, I'll have to wait until next month". It may sound insane, but we were like - great, sounds like they're going to buy!

RAPID GROWTH

Innovation and customer service

Fuelled by JIRA's success, by 2004 Atlassian had grown to six developers. Unhappy with the bevy of wikis on the market, the team created Confluence, an enterprise wiki, Atlassian's second biggest product after JIRA. By 2006, Atlassian's customers ranged from very small two-person start-ups to very big enterprises like Cisco, Oracle and The World Bank, with half of *Fortune 500* companies reportedly using an Atlassian product²⁵¹. In January 2007, the company doubled the number of products when it released Bamboo and Crowd. The acquisition, in August 2007, of Cenqua, a US-based supplier of market-leading software engineering tools FishEye, Crucible and Clover, further expanded Atlassian's portfolio of products (see *Exhibit 3* – Description of Atlassian's Products). Early in 2008 Atlassian released JIRA Studio, a hosted version of its product suite²⁵². All Mike and Scott's ideas were developed into products to address their own 'pain point' following essentially the same pattern²⁵³:

We haven't really built anything without having the fundamental problem ourselves and actually trying to solve it, which makes what we're trying to do a lot easier. If you're solving your own problems, it's a lot easier to build something good.

Originally chalking up customer wins one at a time on a whiteboard, Atlassian started to gain hundreds of new customers per month. Its customer base and revenue quadrupled and tripled during the first few years (see *Exhibit 4* – Atlassian's customers and *Exhibit 5* – Atlassian's Milestones). One of the best customer testimonials was posted on the company's website: "We now have a pretty simple rule for products from Atlassian – if they've built it, we'll buy it"²⁵⁴.

Atlassian's transparent approach extended beyond its original pricing model to the software development process. Customers could raise feature requests as well as see what bugs had been reported. All customers received full source code, allowing them to customize Atlassian's products to suit their own environment. Atlassian worked closely with the open source software community in an admittedly 'symbiotic' relationship. All products were built using open source

²⁵¹ <http://itsinder.com/2006/10/26/atlassian-why-i-luvem>, accessed 18 May 2009.

²⁵² Atlassian company website, www.atlassian.com/about accessed on 15 May 2009.

²⁵³ Interview with Mike Cannon-Brookes, 8 December, 2008.

²⁵⁴ Atlassian company website, www.atlassian.com/about/press/backgroundd.jsp accessed on 15 May 2009. All customer testimonials are unsolicited.

components many of which had been developed by Atlassian and donated back to the community, enabling much faster product development at a lower cost²⁵⁵.

As the company grew, answering customer queries within an hour of the initial call became a difficult goal, but the entrepreneurs had not pulled back from their service commitments. All incoming communications were answered within 24 hours, and customers could call and speak directly to the person who could help, from a customer service representative through to senior software developers. By late 2008, Atlassian had several dedicated people in support, and a pre-sales team responded to the many hundreds of email queries on a daily basis. This side of business was difficult to scale fast enough. The entrepreneurs believed that their ability to scale up was related to their proven talent for pro-active problem-solving²⁵⁶:

Perfect support means if someone asks a question, we take time to ensure that no one ever has to ask that same question again – whether through improvements to the system, or with better documentation. This is because by the time we have 50,000 customers, we want to eliminate the need for support. Okay, in reality, this is never going to happen, but the support team needs to have that sort of mindset...We ought to be able to handle support for 50,000 customers with a dedicated team of around 100. That would represent an efficiency gain, but we have been getting efficiency gains in support all along. That's because our products continue to get better, and because we do more than just answer the query, we really extend the effort.

Mike and Scott considered Atlassian a product- and service-driven company, with the creation of new and innovative products being Atlassian's utmost business objective²⁵⁷:

If you divide companies into single categories you'd have product companies, marketing companies, sales-oriented companies, and we're without doubt a product-oriented company. You'd probably also have engineering companies, and I would say we're an engineering company. Product is our main strength due to the founders, the way we set up the business and also largely due to the business model that we have.

The company did not practice marketing in a conventional sense (as anyone in the world could order the product off the web) and spent very little on advertising or sales support, relying mostly on word of mouth. While in the early years marketing was everybody's job – particularly that of the founders, the Sales Director and developers – in 2006 Mike and Scott realised that hiring a Marketing Director could help to professionalise the business and propel further growth. An experienced VP Marketing joined Atlassian a year later, and by 2008 the marketing team had grown to well above 20 people.

HR practices

Finding technical talent had proved to be a major constraint on Atlassian's long-term growth, despite it being Atlassian's priority. Atlassian spent very little money on recruiters, with the majority of new hires coming from staff referrals or from the website. The website openly

²⁵⁵ Atlassian company website, www.atlassian.com/about accessed on 15 May 2009.

²⁵⁶ Interview with Mike Cannon-Brookes and Scott Farquhar, 6 September, 2006.

²⁵⁷ Interview with Mike Cannon-Brookes, 8 December, 2008.

declared: “HELP WANTED! Check out our current openings, we’re always hiring!”²⁵⁸ On occasions, Mike and Scott had to source talent outside Australia and closely followed Andrew Bassat’s advice (the co-founder of the highly successful Australian online recruitment company Seek) that it is better to wait for good staff than hire the wrong ones out of desperation²⁵⁹. The founders explained how they tried to keep top talent:²⁶⁰:

We pay people very well. We spend a lot of money on offices – internal offices, not external. Our reception area isn’t very flashy, our meeting rooms are basic, but we make sure everyone has a large flat screen on their desk. We spend a lot of money on filling the fridge with anything they might need. We take people out to nice parties, and work on maintaining a good office culture. I’m sure we could certainly save heaps by moving out of the central business district, but I know of at least three good people that would quit immediately if we did...We are very aware of not cutting costs where we actually make money from spending.

The choice of the head office premises in downtown Sydney reinforced Atlassian’s commitment to attracting talented people. The leased 1877 heritage-listed building was extensively renovated and cleverly refurbished to give it a quirky and modern but not over-designed look. It was one of the few office buildings in the area that had a large deck to hold staff functions.

In 2005-2006, Atlassian appointed an HR director to improve recruitment, leadership development and training systems. The founders hoped that the number of customers would increase faster than the number of staff, as each employee developed multiple skills across operations, invoicing or sales. Atlassian’s staff turnover was generally small and close to zero in some years.

Despite its exponential growth, Atlassian managed to retain an entrepreneurial spirit and create an organisation with distinctive culture. The founders were mindful of not stifling the early start-up stage excitement with excessive structures and processes so as not to lose the best people. As one of the elements of the organisational culture that did not scale were the founders themselves, in 2007-2008 Atlassian’s founders and employees worked hard on codifying Atlassian’s corporate values (see *Exhibit 6* – Atlassian’s values). These values became enshrined on the glass wall in the front office. Other ways of preserving the organisational fabric included founders’ lunches (where Mike and Scott took every new employee out for lunch), various corporate parties and events, and ‘FedEx Day’ and ‘lab days’ aimed to promote creativity. For example, during FedEx Day (introduced in 2006) Atlassian developers would create something of their choice and ‘ship’ it in 24 hours. This concept was subsequently copied by other companies, including Yahoo!²⁶¹

Global Reach

By their own admission, Atlassian’s founders had global orientation from day one, as their business could not survive if it focused solely on the Australian market. In 2009, Atlassian had

²⁵⁸ Atlassian company website, www.atalssian.com/about accessed on 15 May 2009.

²⁵⁹ Tim Treadgold (2006) ‘The Best of the Fast’, 12 October, *Business Review Weekly*.

²⁶⁰ Interview with Mike Cannon-Brookes and Scott Farquhar, 6 September, 2006.

²⁶¹ Atlassian company website, www.atalssian.com/about accessed on 2 June 2009.

about 200 employees worldwide in Sydney, San Francisco, Amsterdam, Kuala Lumpur and Poland. While most of the engineering, R&D, customer support and corporate functions were centralized in Sydney, other overseas offices had a number of different functions (see *Exhibit 7 – Offices’ functions*). The San Francisco office (in effect, Atlassian’s second main office) provided Atlassian with access to marketing talent not available in Australia, and other offices were established mainly for ‘time zone reasons’ to ensure 24/7 support. Atlassian aimed at four hours response for every interaction with the customers around the globe, be it by email, online, phone or chat.

Most of Atlassian’s senior management team had some international experience: for example, Head of Engineering started in the Silicon Valley, and the CFO had worked in Hong Kong and the U.S. The founders traveled extensively between Australia, the U.S. and Europe, sometimes spending as much as a fortnight per month away from the Sydney office. Ensuring coordination in what was quickly becoming a medium-sized multinational enterprise proved a continuing challenge.

Social Contribution²⁶²

Since it opened its doors, Atlassian had donated over 2,500 licenses to charities and not-for-profits. Some well-known charities that used Atlassian software included World Vision, The United Nations, The Fox Chase Cancer Center, The Sierra Club, The MS Society, The National Breast Cancer Foundation, The Red Cross, UNICEF and Amnesty International. In late 2006, Atlassian created a non-profit foundation to focus the charitable giving that had previously been ad-hoc by the founders. The Foundation adopted a ‘1%’ model: 1% of staff time (up to six days per employee per year), 1% of revenue and 1% of equity was donated to its Foundation. While some employees chose to work in soup kitchens for their six days a year, many opted to put their technical skills to good use, helping charities build the websites or internal systems.

Recognising the importance of education in its success, Atlassian annually sponsored \$USD60,000 worth of scholarships at the University of NSW. These scholarships encouraged students to enter the IT profession, and were often awarded to country students who otherwise could not afford to move to the city for university.

NEW CHALLENGES

Throughout the years, Mike and Scott shared the same mentality of growing their business conservatively and hedging their bets carefully. They ever only funded out of retained earnings, and hired people when they could afford them. Atlassian still did not have a Board, because in the past Mike and Scott would not have attracted the people of the caliber needed to grow Atlassian to a \$100 million company. The founders continued to eschew the typical sales, consulting and professional services revenue streams that diverted focus away from customers, maintaining their focus instead on creating innovative software. While in the relatively short span of seven years of its existence Atlassian had become very successful by Australian standards, its achievements looked modest when compared to U.S. start-ups: Google, for

²⁶² Atlassian company website, www.atlassian.com/about/press/background.jsp accessed on 18 June 2009.

example, turned over US\$6 billion at the end of its seventh year (2005). The founders wondered whether time finally came for Atlassian to become more aggressive in its growth strategy.

ACKNOWLEDGEMENT:

The authors would like to acknowledge the contribution of Carl Hedberg of Babson College who collected the interview and other data in 2006.

EXHIBITS

EXHIBIT 1 – ATLISSIAN’S AWARDS

Read Write Web's Top 10 Enterprise Web Products (2008)

Part of its series of top products for 2008, ReadWriteWeb named Confluence to its list of Top 10 Enterprise Web Products. We are honored to be part of this year's list which includes the likes of Amazon, Google and SalesForce.com. As RWW says: "We are seeing major wiki adoption in the enterprise. It is simply a much easier way to collaborate than by putting lots of complex technology under the general umbrella of the Intranet...Atlassian seems a safe bet for enterprise, having traction and a good breadth of products."

EContent 100 (2008)

Atlassian Confluence was selected for the EContent 100 awards in the Collaboration category. EContent writes, "Everyone knows they should play well with others. But frankly, that's tough enough for a lot of folks. When those others span the globe and never meet, things get a whole lot more complicated. Collaboration tools enable teamwork, web-style, which emphasizes shared knowledge and member contribution, regardless of proximity."

Deloitte Technology Fast 50 (2008, 2007, 2006, 2005)

For the fourth year in a row, Atlassian was named as one of the winners of the 2008 Deloitte Technology Fast 50. The Fast 50 ranks the fifty fastest growing technology companies, public or private, based on percentage revenue growth over three years (2006-2008). Atlassian achieved a staggering 255% growth in revenue over this period and was accordingly ranked #20 among the Fast 50.

City of Sydney Business Awards (2008)

Atlassian took home two awards from the City of Sydney Business Awards including being named winner of the City of Sydney's Business of the Year. The ceremony took place at Doltone House and was presided over by Lord Mayor Clover Moore MP. Atlassian competed with 260 other Sydney-based businesses to win the Information and Communication award, recognising Atlassian as a leader in business technology, as well as the overall honour of Business of the Year.

NSW Pearcey Award (2008)

The Pearcey Awards is an Australian State Award that is given to an individual early in their career. Atlassian's founders Mike Cannon-Brookes and Scott Farquhar were jointly awarded this honour for their demonstrated innovative and pioneering achievements, and their contributions to research and development within the ICT industry.

SDTimes 100 (2008, 2006)

Atlassian was once again named to the prestigious SDTimes 100 list, which recognizes those companies, organizations and individuals that most broadly 'set the agenda' in the software industry. Atlassian won in the Application Lifecycle Management category which recognized solutions that supported the spectrum of collaboration workflow from start to finish.

SmartCompany Award (2007, 2008)

For the second year in a row Atlassian was named one of the Smart50 companies in Australia. SmartCompany spent months combing through hundreds of applications, from start-ups to companies with up to \$200 million revenue, to reach this final 50, which are ranked on revenue growth over three years. Atlassian was ranked 17th on the Smart50 List and took out the Top Exporter award which is judged based on the company's profitability, growth & innovation.

BRW Fast 100 (2005, 2006, 2007)

For the third year in a row, Atlassian was selected for the BRW Fast 100. The BRW Fast 100 is a list of Australia's fastest-growing small and medium-sized businesses, ranking companies with up to 200 staff according to their average annual turnover growth over three years. Atlassian achieved 168% growth in the last year, ranking it the ninth fastest growing company in Australia.

Ernst & Young's Australian Entrepreneur of the Year (2006)

Atlassian's founders Mike Cannon-Brookes and Scott Farquhar were named Ernst & Young's Entrepreneur of the Year for Australia. After being named Young Entrepreneur of the Year, they qualified to be in the running for the top honours. At just 26 years of age each, Mike and Scott were the youngest winners of the overall category award which honours entrepreneurs who are building and leading successful, growing and dynamic businesses.

In addition, Atlassian's products won a number of industry awards.

Source: <http://www.atlassian.com/about/awards.jsp> accessed 7 June 2009

EXHIBIT 2 - THE AUSTRALIAN ENTREPRENEURIAL ENVIRONMENT IN 2001

Source: *Yellow Pages GEM Australia (2001, pp. 31-42)*

Figure 7 – Financial Support: International comparison of expert opinion

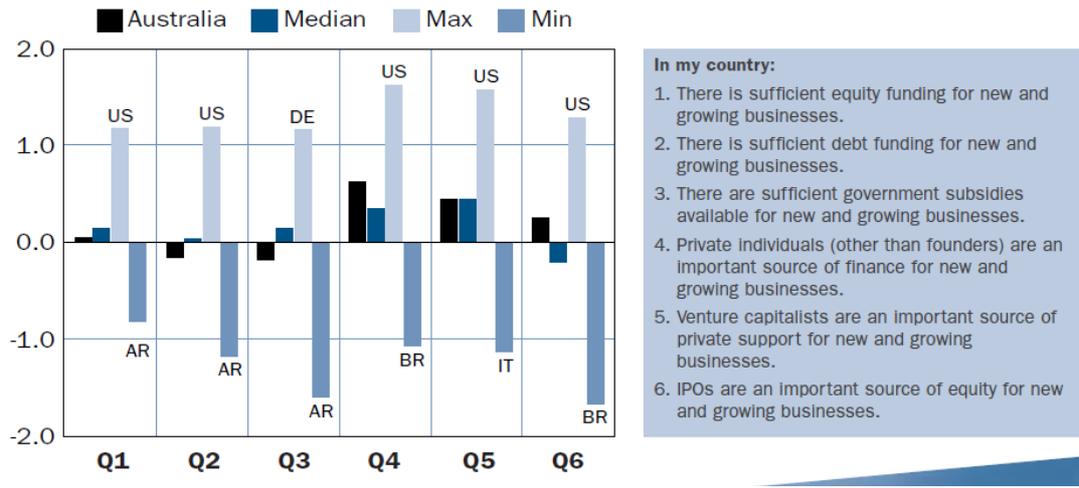


Figure 8 – Government Policy: International comparison of expert opinion

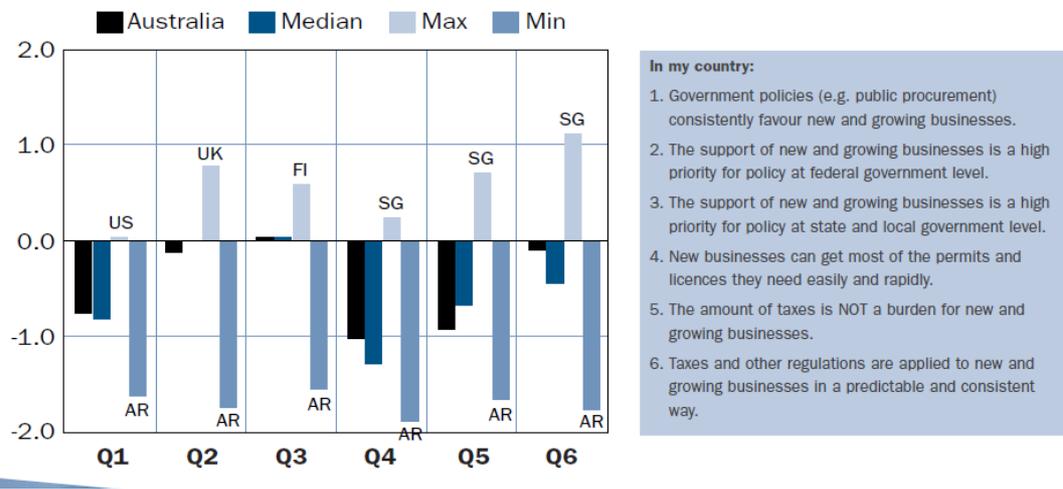


Figure 10 – Education and Training: International comparison of expert opinion

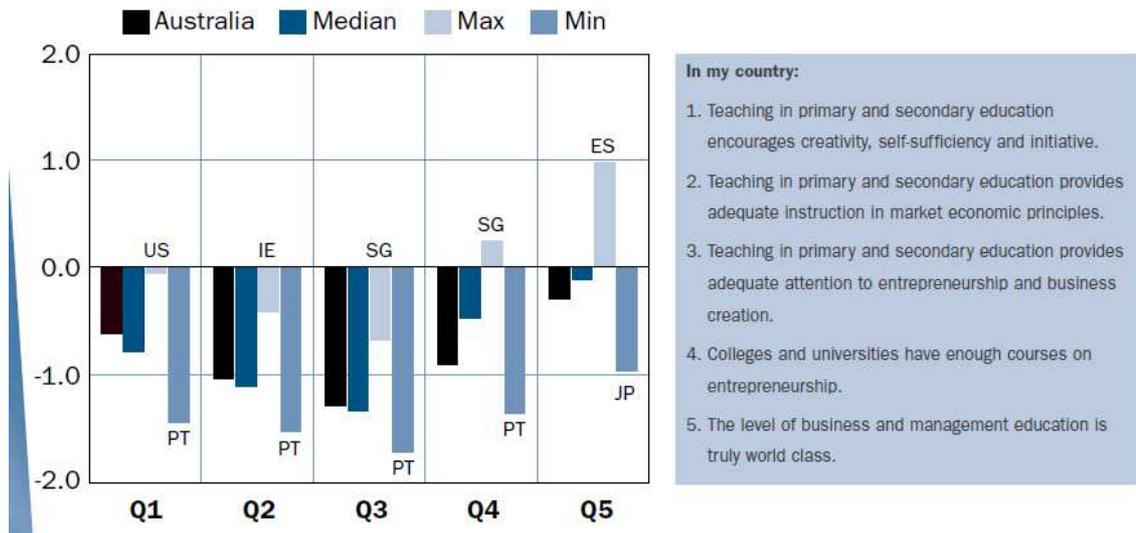


Figure 12 – Research and Development Transfer: International comparison of expert opinion

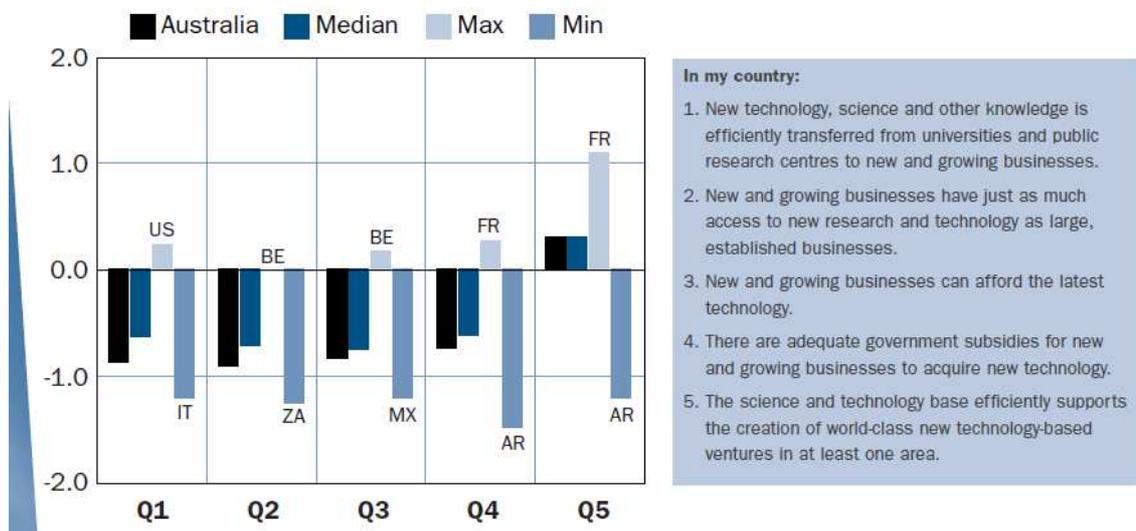
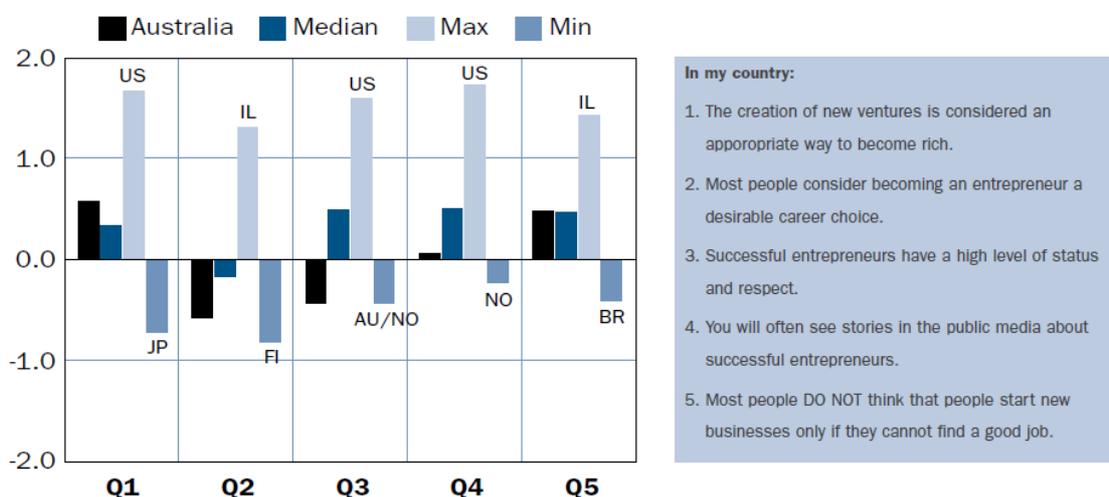


Figure 16 – Entrepreneurial Motivation: International comparison of expert opinion**Table 11 – Australian Entrepreneurial Effectiveness Scorecard**

ITEM	Australia		All GEM countries		
	Rank	Score	Median	High Score (Country*)	Low Score (Country*)
Entrepreneurship Environment Ratings (Source: Key informant surveys; Scale: 1=Low to 5=High)					
[Note: available for only 25 of the participant countries]					
Availability of capital	17	2.88	3.11	4.10 (US)	1.79 (AR)
Importance of risk capital	8	3.46	3.26	4.49 (US)	1.85 (BR)
Government policy support	14	2.72	2.75	3.31 (SG)	1.37 (AR)
Low regulation and taxation burden	11	2.30	2.19	3.54 (SG)	1.22 (AR)
Government program effectiveness	15	2.47	2.67	3.57 (DE)	1.42 (AR)
Education and training effectiveness	15	2.11	2.14	2.79 (SG)	1.55 (PT)
Research and development Transfer effectiveness	15	2.36	2.39	3.24 (BE)	1.86 (AR)
Commercial and professional infrastructure	13	3.27	3.27	3.89 (US)	1.94 (JP)
Rapidity of change in markets	17	2.57	2.86	3.64 (JP)	2.13 (NO)
Low barriers to market entry	7	2.99	2.67	3.44 (US)	2.22 (ZA)
Ease of access to physical infrastructure	8	3.99	3.82	4.46 (SG)	2.88 (IN)
Cultural value placed on independence	6	2.93	2.51	3.64 (US)	1.89 (SE)
Tolerance of uncertainty	7	3.68	3.52	4.32 (US)	2.92 (JP)
Perception of business opportunities	13	3.3	3.30	4.20 (US)	2.46 (AR)
Capacity to act on business opportunities	12	2.45	2.42	3.13 (US)	1.77 (JP)
Motivation to act on business opportunities	21	2.99	3.25	4.49 (US)	2.84 (NO)
Protection of intellectual property	2	3.99	3.18	4.07 (SG)	2.14 (IN)

EXHIBIT 3 – DESCRIPTION OF ATlassian'S PRODUCTS

**JIRA**

JIRA lets you prioritise, assign, track, report and audit your 'issues,' whatever they may be — from software bugs and help-desk tickets to project tasks and change requests.

Confluence

Confluence is a simple, powerful wiki that lets you create and share pages, documents and rich content with your teammates.

**FishEye**

FishEye opens your source code repository and helps development teams keep tabs on what's going on using a web interface.

Bamboo

Bamboo automates the process of compiling and testing source code, saving time and instantly alerting you of build problems.

Clover

Clover measures code coverage generated by system tests, functional tests or unit tests, allowing you to improve test quality and find bugs sooner.

**Crowd**

Crowd is a single sign-on (SSO) application for as many users, web applications and directory servers as needed — all through a single, intuitive web interface.

**Crucible**

Crucible is a peer code review tool that allows teams to review, edit, comment and record outcomes.

JIRA Studio

JIRA Studio combines Atlassian's bug tracker, wiki, and development tools with Subversion source control to deliver an integrated development suite.

Source: <http://www.atlassian.com/software/> (accessed 7 June 2009)

EXHIBIT 4 - ATLISSIAN'S CUSTOMERS

Atlassian has over 15,200 customers from more than 113 countries around the world (June 2009). A representative customer list broken down by industry sector includes:

<p style="text-align: center;"><u>Technology &</u></p> <p><u>electronics</u></p> <p>Cisco Dolby Laboratories Fujitsu Hewlett-Packard Logitech Motorola Nikon NEC Palm, Inc. Panasonic Qualcomm Samsung Siemens Sony Toshiba</p>	<p style="text-align: center;"><u>Retail & food</u></p> <p>Abercrombie & Fitch Best Buy IKEA KFC McDonalds Miller Brewing Company Office Depot Procter & Gamble Target TetraPak The Home Depot</p>	<p style="text-align: center;"><u>Health &</u></p> <p><u>biotechnology</u></p> <p>Becton, Dickinson and Company Cambridge Antibody Technology CIGNA Cochlear GlaxoSmithKline Imclone Kaiser Permanente Lexicon Genetics McKesson Novartis Pharmaceutical Pfizer ResMed Roche Diagnostics</p>
<p style="text-align: center;"><u>Universities &</u></p> <p><u>academia</u></p> <p>Australian National University Carnegie Mellon Cornell University Harvard University Hong Kong University of Science & Technology MIT National Library of Medicine New York University Stanford University University of California University of Cambridge Yale University</p>	<p style="text-align: center;"><u>Internet &</u></p> <p><u>software</u></p> <p>Adobe AutoTrader.com Borland eBay, Inc. Expedia Intuit JBoss Jive Software LinkedIn Microsoft Novell Oracle Real Networks, Inc. SAP Yahoo!</p>	<p style="text-align: center;"><u>Entertainment &</u></p> <p><u>media</u></p> <p>Associated Newspapers BBC Bertelsmann Media Group (BMG) Disney eMusic.com GoTV Networks HBO Los Angeles Times MusicNet ational Hockey League Oxford University Press O'Reilly Media, Inc. Pixar Animation Studio The Financial Times</p>

<p style="text-align: center;"><u>Engineering &</u></p> <p><u>aerospace</u></p> <p>Airbus Air Canada All Nippon Airways American Airlines Boeing Caterpillar Emirates Airlines Lockheed Martin Lufthansa Mott MacDonald Northrop Grumman Raytheon Thales</p>	<p style="text-align: center;"><u>Banking & finance</u></p> <p>ABN AMRO American Express Barclays Capital BNP Paribas Citigroup Credit Suisse Dow Jones & Company Deutsche Bank E*TRADE Fidelity First Gulf Bank HSBC Merrill Lynch Reserve Bank of NZ Western Union World Bank</p>	<p style="text-align: center;"><u>Science & research</u></p> <p>CSIRO European Space Agency Gemini Observatory Lawrence Livermore National Laboratory NASA New Scientist Norwegian Institute for Air Research Software Engineering Institute</p>
<p style="text-align: center;"><u>Automotive &</u></p> <p><u>travel</u></p> <p>BMW BP DaimlerChrysler Hertz Honda John Deere Peugeot Citroen Sabre Shell Thomas Cook Toyota Volvo</p>	<p style="text-align: center;"><u>Consulting &</u></p> <p><u>services</u></p> <p>Accenture AES ADP Employer Services BHP Billiton Booz Allen Hamilton Digitas Fannie Mae GE Hoovers Lehman Brothers PricewaterHouseCoopers The Gallup Organization Toll Solutions TransCanada</p>	<p style="text-align: center;"><u>Government</u></p> <p>Bundespolizei - German Federal Police Department of Agriculture and Food (Ireland) European Commission European Parliament FBI Ministry of Health Singapore National Library of Australia National Police Port of Seattle Swedish Armed Forces HQ United Nations USAID US Department of Energy US Environmental US Navy</p>

Source: <http://www.atlassian.com/about/customers.jsp> (accessed 7 June 2009)

EXHIBIT 5 - ATLISSIAN'S MILESTONES

2002

Mike and Scott invest \$10,000 to start Atlassian with one product, Jira

2004

Atlassian employs 6 software developers, Confluence is released

2005

3500 customers in approximately 50 countries

2006

3 years revenue growth reaches 945%

the company records 197% annual revenue increase

5000 customers in more than 60 countries

2007

Revenue for fiscal year 2006/07 reaches \$ 22.5 million

the number of products is doubled with the release of Bamboo and Crowd

acquisition of Cenqua (developers of Fish Eye, Crucible and Clover)

over 100 employees worldwide

2008

Revenue for fiscal year 2007/08 reaches \$ 35.5 million (74.5% annual growth)

Jira Studio is released

Amsterdam office opens

Poland partnership

2009

More than 15200 customers in 113 countries

195 employees worldwide

Sources: company website accessed 7 June 2009, Business Wire 6 Nov, 2006; Press Release News Wire 16 Jan, 2006; Smart Company, 3 March 2009.

EXHIBIT 6 – ATLISSIAN’S CORPORATE VALUES**“Open company, no bullshit**

Atlassian embraces transparency wherever at all practical, and sometimes where impractical. All information, both internal and external, is public by default. We are not afraid of being honest with ourselves, our staff and our customers.

Build with heart and balance

Everyday we try to build products that are useful and that people lust after. Building with heart means really caring about what we're making and doing — it's a mission, not just a job. When we build with balance we take into account how initiatives and decisions will affect our colleagues, our customers and our stakeholders.

Don't #@!% the customer

When we make internal decisions we ask ourselves “how will this affect our customers?” If the answer is that it would 'screw' them, or make life more difficult, then we need to find a better way. We want the customer to respect us in the morning.

Play, as a team

We want all Atlassians to feel like they work with Atlassian, not for Atlassian. We think it's important to have fun with your workmates while working and contributing to the Atlassian team.

Be the change you seek

We think Gandhi had it pretty right when he said “We need to be the change we wish to see in the world”. At Atlassian we encourage everyone to create positive change — we're constantly looking for ways to improve our company, our products and our environment.

Disclaimer:

We realise that some people might find our values offensive, please be assured that we are not out to offend/shock/irritate you. Atlassian got where it is today by being openly and publicly ourselves. All these values have evolved from phrases and principles that we use and live everyday.”

Source: <http://www.atlassian.com/about/values.jsp> (accessed 7 June 2009)

EXHIBIT 7 – ATLISSIAN’S OFFICES AND FUNCTIONS, LATE 2008

<i>Offices</i>	<i>No of employees</i>	<i>Functions</i>
<i>San Fransisco (US)</i>	<i>60</i>	<i>Marketing and support</i>
<i>Kuala Lumpur</i>	<i>20</i>	<i>Customer 24/7 support</i>
<i>Amsterdam</i>	<i>N/a</i>	<i>Sales and support, a potential European hub. Established in mid 2008</i>
<i>Poland</i>	<i>N/a</i>	<i>R&D and engineering</i>

Source: Interviews and Atlassian’s company website

THE ECONOMIC ANALYSIS OF INTELLECTUAL PROPERTY RIGHTS STRATEGY

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Modern economy is driven by ideas, informations and innovations. Companies, no matter if they are supported by governments or not, invest in research and development continuously.

These investments include costs of human resources, technologies, industrial goods, lasting development period combined with financial risks in development period and financial risks in market-positioning period. Cost and risks of R&D are most likely to exceed investor's real economic potential. Contrary to this, investors and firms tend to find the way to finance expensive and risky R&D projects because of the perceived gains and advantages they expect in terms of their market position, profit and social and business respectability. However, there is always a need to use some form of assurance instruments that will cover at least partially potential risks and costs. The most common and probably one of the most used instruments (beside various forms of insurance) are Intellectual Property Rights (IPR). Industrial sector and scientific community emphasizes the importance of patent and other IPR. Investors and companies, in order to use benefits of this instruments must develop adaptable business strategy based on the legal protection of intellectual property rights and other specific factors, such as culture, environment, tradition, proper marketing strategy etc.

The paper confronts two concepts: a concept of private IPR strategies and government support programs, but also emphasizes a need and some results of their cooperation.

Key words: Marketing in Public Services, Communication Strategy, Public Perception

INTRODUCTION

Advantages and disadvantages of private IPR strategies and their benefits and shortcomings for investors and firms derived from a national strategy. Legal framework and government support programs for R&D. The most important benefit of Patent Law and other IPR is assurance of further R&D activities. This paper investigates if IPR strategies assure investors and companies to take profit from protected innovation that will exceed the costs of project and also allow them self-financing of further R&D activities. If an investor expects profit, he will be more encouraged to invest even more and overtake the risk of new projects and innovation. IPR strategies also encourage industrial and scientific development which is not only in interest of private corporations, but also in interest of government and social community. Its main benefit and protection for innovators and investors – exclusiveness – may also result in one of its main shortcomings – monopol. Monopol that Patent Laws may create manifests in three different directions – monopol over informations, monopol over invention representing specific new technology or product potentially of a wider interest for social welfare and monopol on markets in respect of profit. Although IPR strategies may create an incentive for further research, it may also result into strict control of new, valuable informations for scientific community creating

profit for innovators and investors, but excluding others. We have to be aware of the fact that any future research or innovation is based on knowledge and research results we accomplished in past or accomplish now. The incentive is strong, but not optimal, especially if combined with lengthy patent life span. As much patent life exceeds, profit is higher, but control over information becomes stronger and prices higher with more negative effects. We find examples of this statement in transfer of new technologies to the developing countries encountering high prices, high costs of implementation or sometimes even failure of implementation due to lack of specific knowledge and know-how. Patent also affects market – it denies an opportunity to other competitors to grow or pushes them into a race with inventors producing higher costs and uncertainty in their future business activities. We find many examples of companies swept away from the markets by competition and their costs of investment were merely returned by profit in sales. However, some of the negative effects of patent protection may be tendered by government involvement if certain innovation is of a public interest. This system compared to one in USA is being preferred in EU and Japan. It relies on government support programs for R&D projects and cooperation with scientific community and innovators. Optimal patent protection is obtained by prerequisites of these programs: shorter patent life span, contractual obligations of licencing, shares in profit and disclosure of informations applicable to other R&D projects.

LEGAL BACKGROUND

The roots of the intellectual property system in Croatia date back to the second part of the 19th century, since the common Croatian and Hungarian Parliament passed two important laws concerning intellectual property: the Copyright Law²⁶³ and the Patent Law²⁶⁴.

The intellectual property protection has been continually present and developed from those time and up to the present day in accordance with the highest international legal criteria²⁶⁵ and the needs of the growing industrialization and international trade.

First, the Constitution of the Republic of Croatia guarantees²⁶⁶:

“... The State shall stimulate and assist the development of science, culture and the arts. The State shall protect scientific, cultural and artistic goods as national spiritual values. Protection of moral and material rights deriving from scientific, cultural, artistic, intellectual and other creative activities shall be guaranteed ...”.

Second, adopted laws²⁶⁷ and regulations primarily protect the interests of right holders and market competition. Only exceptionally is protecting a public interest, when and if for the legislator is more important a social well-being.

²⁶³ On 4 May 1884

²⁶⁴ On 7 July 1895

²⁶⁵ Paris Convention for the Protection of Industrial Property of 1883 and Berne Convention for the Protection of Literary and Artistic Works of 1886.

²⁶⁶ Article 68 of the Constitution of the Republic of Croatia

²⁶⁷ Patent Act (OG No. 173/2003, 87/2005, 76/2007), Trademarks Act (OG No. 173/2003, 76/2007), Industrial Design Act (OG No. 173/2003, 76/2007), Act on Geographical Indications and Designations of

Incorporated the latest normative standards in the field of copyright and industrial property²⁶⁸ in the national system, Croatia provided the highest criteria of protection of intellectual properties with regard to the manner of acquisition of protection, duration of protection, the exercise of rights as well as enforcement of the rights.

But to this range of the rights should be add other institutes as eg: trade secrets²⁶⁹, know-how, firm²⁷⁰. This instruments could achieve a similar effect as listed instruments, but in the most cases they are using as additional instruments of protection of industrial property rights in order to control over the information and the exclusion of third party business information firm.

NATIONAL IPR STRATEGY – PRIVATE IPR STRATEGY

Importance of intellectual property rights for Croatian economy effected a creation of a national strategy for development of intellectual property²⁷¹. This strategy created for the period of time from 2005 untill 2010 the basic conditions for a) ensuring the level of protection of IPR similar to that existing in the EU, b)harmonizing the level of protectiona in accordance with all international obligations and agreements binding Croatia, c) improvement of the enforcement of intellectual property rights, d) improvement of institutional framework such as inspectorates, custom, administration, police, justice, e) the improvement of intellectual property as a power tool for economic growth and the originator of the scientific, cultural and overall social progres in order to reach the aerge level of such use in the leadign EU countries, f) establishing incentives for the right owners.

In the area of research and development that contribute to the general public interest or community, and, or where a particular industry in which research and development carried out is marked as a strategic industry of the national economy, the costs are often covered by state through the scientific community support programs or programs of public-private partnerships.

Therefore, but not only because of that, the national strategy is or could be a base for private IPR strategy.

As it was mentioned, intellectual property rights could be the power tool for economic growth of any company with a vision of effective exploitation of intangible goods. And vision has to be a basis for creating of private IPR strategy of the company.

Of course, in creating the IPR strategy should not be taken in account only the appropriate forms of intellectual property – incorporated in the appropriate laws - but also the technical properties or aspects of products, design, quality, function and price of the products to attract consumers, as well as the necessary financial means for process of protection of the rights on domestic or/and on international level, for product development and producing, marketing

Origin of Products and Services Act (OG No. 173/2003, 76/2007), Act on the Protection of Topographies of Semiconductor Products Act (OG No. 173/2003, 76/2007)

²⁶⁸ Instruments of protection of intellectual property rights includes now: patent, consensual patent, trademark, industrial design, geographical indications and appellations of origin, topographies of semiconductor products

²⁶⁹ Steven Shavell, *Temelji ekonomske analize prava*, Mate d.o.o., Zagreb, 2009, p.137

²⁷⁰ The provisions of the laws on Trade Secret, Unfair Competition, Corporationame

²⁷¹ In the year 2004

strategies, including product price compared to competing or similar products in order to get a realistic value of the good.

But the appropriate form of intellectual property should insure the owner an exclusive rights and that could be a primary factor in a decision making process.

Considering all mentioned – or depending on the circumstances some other facts not mentioned yet – it is very important to decide which instruments of protection will be used.

ECONOMIC JUSTIFICATION FOR THE INTEGRITY AND EXCLUSIVITY RIGHTS OF THE PATENT OWNER

Subject of protection

Intangible goods as a products of the human mind have certain value for their owners and for society. The value certainly is not the same for the individual - owner of the goods, and for the society, but the emphasis is always on protection of human creativity, which ultimately contributes to the general social development.

Intangible goods are the object of the protection. They could be protected by one or more various instruments of intellectual property, which could be mutually complement. So, patent protects a new solution of technical problem, industrial design protects a new external features or shape of product and trademark protects a sign used to label or name product and/or service.

This instruments, named as industrial property rights²⁷² allows their holders protecting of their intellectual creations. Therefore, it is essential a standard of the protection, which authorized the right holders to prohibit the third party a credit of the creation of intellectual creations, or to exploit them without his approval, or in case of violation or misuse of the rights by ensuring the appropriate administrative, civil and criminal legal protection. So, it is secured the control over the acts of third party - the control over the information in the process of creating the work, the control over the distribution of the work, the control over the terms of use of the work or economic terms, and, in the economic sense very important issue, the control over income from the intellectual rights. Of all instruments of the intellectual property rights, these characteristics are considered to be the most prominent in the field of patent protection, because, it seems that patents are very much related to technological progress than other industrial properties instruments. But it looks quite different in the real world because the sale of goods, as well as the sale of firm, really means the sale of trademark or industrial design, although it is in the same time the sale of technology too. Only in cases of buying very technical sophisticated goods or equipments the emphasis is on patents.

From the economic point of view can not be regarded trademark or industrial design or other industrial properties as less valuable instrument of the patent.

Therefore, for the purposes of this work will be analyzed the characteristics of the patent, trademark and industrial design and their effects.

Arguments for exclusivity and monopolisation

²⁷² For the industry this rights are more important than copyright

Patent

Croatian law defined as a patent an invention in the field of technology that is new, have an inventive step and is industrially applicability. Therefore, it is an original intellectual creation of the inventor, which is a novelty in the current state of science and technology and represents an advance over existing knowledge, and can be applied in the production process. Why did the inventor need protection?

First, a moral right of the inventor. Inventor, who has with own knowledge and own work achieved the result – invention – and because of that should be always recognized as the creator of the invention. The patent owner has the exclusive right to create, use, placing on the market or sell his invention/patent and in the same time he has the exclusive right to require from third parties to respect his invention, forbidding them the use of the results of his work, or allowin them the use of the results of his work, but under conditions which he determines (usually giving a licensee or through other agreement transferring the patent). The patent owner not only exclude third parties from unauthorized use, but also he exclude them from information and facts that were an integral part of the process of invention, at least before the registration becomes publicly available or longer in the case that same facts are keeping as trade secret or know how.

Other exclusive rights of the patent owner are linked on economic or business function of patent. Objects of the patent protection are industrial applicable inventions and the patent owner expects that he will obtain a profit exploiting the invention and distributing it as a product, but in the same time he monopolizes the profit of the patent. This right is the result of high costs in the proces of creating of invention.

Second, profitability of financing of R & D projects. Research, regardless of the investment, does not necessarily result in a favorable outcome, ie invention, and especially not patentibility invention. But, there is no guarantee that the invention could be industrial applicable. Then, even if it is industrial applicable, there is a risk in the period of market placement of the product. No one guarantees that the invention / patent would be able to win the corresponding market share or not to be squeezed from the market of competitive products. Market research on the needs of consumers as well as the existing competition for sales of new products with simultaneous selection of trademark attractive for consumers are the tools necessary for further market penetration.

Third, a risk of competition. The entire period of research requires protection from industrial espionage, while in the process of making business decisions is important to know if, and or a competitor does research and investment in identical or similar products. The same could be in the phase of market placement and positioning²⁷³. The increasing of the cost – particulary activities of advertising and marketing - could be caused in both cases.

Therefore, the patent provides the owner exclusive rights to create, use, placing on the market or sell the invention protected by patent. Therefore, the patent is property whose owner can expected an income from the patent. The sence of the patent and patent exploitation is to

²⁷³ Unsuccessful example of this investment is Sony's MiniDisc, which is at the phase of market placement and positioning was suppressed of competitive manufacturers of MP3Player

recover the actual cost of investment plus planned investment costs and risks to ensure that the research and development exposed. After the return of initial investment, the patent will enable to achieve the profit in the phase of market distribution. After the stagnation and, or decline in the phase of market placement, by transferring the patent to third could be made further profit. Profit and return on assets achieved in all three phases in particular will depend on the duration of patent protection, so it is understandable that the longer life is in the interest of inventors and investors .

Appropriate patent protection, which provides more rights to the owner will motivate the business community to continue with further research and development of projects which may have a beneficial to the whole society.

Trademark and design

Undoubtedly is that consumers perceive the trademark and design of goods first, and then the technical characteristics. Generally, it can be argued that trademark and design sell goods more than patent. What makes so attractive this distinctive features?

If the trademark is defined as an instrument that protects a sign which serves to distinguish the goods and, or services of one person from other persons in the market, it is clear that the attraction lies in the possibility that the same or similar goods and, or services could be distinguished by marked sign.

If the design is defined as an instrument that protects external appearance of a product in whole or in part, it is clear that the attraction lies in the possibility that the same or similar goods could be distinguished by its spatial or blade characteristics visible at ist normal use.

In both cases just mentioned characteristics provide the owner exclusive rights. Which one?

Trademark provides the owner exclusive right to put in the products and, or services market by it, and design provides the owner exclusive right to use or produce, supply, putting into circulation, import or export products in which the design contained in or by design applied.

Exclusive rights, just as in the patent case, is the magic word that gives the owner the right to prohibit the third person to use his rights and that gives him the right to authorize the use of other people in a certain time for a certain royalty.

The market power can arise from the recognition od trademark or disagn of the product, as they represent of the first symbol, which is linked to our experiences.²⁷⁴

The result of great potencial of recognizable marks and, or designe is that has less space to create new features. Therefore, it is not suprising frequent violations of owners rights and his goodwill, which leads to damage to both parties: the owners, because they have to protected their rights in court proceeding and the consumers, because they do not get the right information about the source, quality and other characteristics of the goods and, or services.

²⁷⁴ Cornish underline that in the case when you would not have been available means to distinguish the goods according to the source would prevail over the lowest common denominator quality ine would be any incentive for competitors to be better, W. Cornish, : *Intelektualno vlasništvo - Sveprisutno, ometajuće, nebitno?*, Omnilex, Zagreb, 2008, p.115.

Arguments against exclusivity and monopolization

Patent

Exclusive rights of the patent owner, despite of a protective function, could have some negative effects. Although, a monopoly is precisely that what gives meaning to patent protection, there are some negative effect of the monopoly for further research as well as negative effects on the market.

First, the patent creates the monopoly on information and invention, at least during the period before the publication of the patent application. Namely, an integral part of the patenting is publication of the patent application, after which the information about the invention became publicity available, regardless of whether the proceeding in the patent to be granted or not. The other solution is to keep the invention as trade secret in which case the inventor bear the risk of possible foreign knowledge and use of invention not having any effective remedy to prevent such use.

The monopoly of information may be understandable and justified due to the nature of products and competition, however, but what is with the information that are potentially of general public interest and use and, or are necessary for further research. In this case, strict patent protection, particularly a long-term protection is against the public interest. Such effects could be avoided by co-financing research projects of social interest of the state or by legislation.

Second, the monopoly on the invention and the product can be unfavorable too. Namely, the monopolisation of products through the prohibition of exploitation without compensation of the inventor or manufacturer, or monopolisation of distribution through specific distribution channels is negatively reflected particularly in the areas of technology patents and technology transfer. Although certainly is not the only reason, and perhaps not even crucial, we can conclude that the monopoly of technology contributed to the gap between developed and underdeveloped countries and developing countries have done economically dependent on technology transfer from developed countries. The developed countries have transferred new technologies to developing countries according to their high prices, often only after the patent protection period has elapsed (do not be surprised but it actually happens even in Croatia) or when the protected technology in terms of technological development becomes obsolete. This situation perpetuating the technological underdevelopment of developing countries and their technology due to high price makes it inaccessible²⁷⁵.

²⁷⁵ Even when the patent protected technology makes available to developing countries, they are faced with serious problems in their implementation. First, the transferred technology for the degree of complexity can be implemented in the existing level of technology of countries, because it is not compatible with existing technology, or the country has not the production capacity. Second, due to lack of educated staff can use to schedule due to lack of skills and knowledge required for the use and maintenance of technology.

Third, the monopoly of the patent-protected product can adversely affect the market conditions and the allocation of resources, creating the market in favor of a particular manufacturer or distributor and disturbing the market balance and competition²⁷⁶.

Fourth, the monopoly price policy may be conditioned by the protected products to the detriment of consumers as an option for the formation of too high (monopoly) prices. Although the current conditions, increased competition in the global market on one side and the financial disturbances and because of that reducing of a purchasing power of consumers on the other side, there is no many companies that can lead long-term policy of high prices without suffering damage in thje same time.

Croatian Patent Law contains some regulations that attempt to avoid the adverse effects of monopoly patent protection.

Thus, art. 63 of Patent Law specifies exclusion from patent protection in the cases when the subject of patent protection are procedures and tests on an object protected by patent applied for registration or the discovery of new drugs or medical products in order to protect the public interest that is social, giving him previlage in relation to the interests of the patent owners.

Even more important is the institute of compulsory license regulated by art. 68 of Patent Law excluding the inviolability of the rights of patent owners in order to protect the national and or public interest, the competitors in the market and market competition itself (in the last two cases in particular suppressing the monopoly of the patent owner).

Must be emphasized that our Patent Law permits a granting of compulsory license in the case of non-exploation of the patent, although this institut does not limit the monopoly. The compulsory licence could be given at the request of any person, but after a grace period of four years of filing the patent application or three years of patent granting. As the compulsory licenses can be issued to protect and, or to improve certain industries, then we can conclude that the law limits the patent owner, however extensive, and motivated not only because of the public interest, but also because of economic and macroeconomic considerations.

Trademark and design

Considerations about the benefits and negative aspects of exclusive rights of the patent owner could be in large part related to the trademark or design owner, respecting the specifics of each right. But not only that there are limitations in obtaining first registration – the basic condition that the sign has to meet in order to became a trademark are that it should be distinguished and not like as earlier trademark, or news and individual character of shape in order to became design - there are provisions about duration of the rights paying appropriate fees and, setting requirements for genuinely use of the trademark by the owner. Otherwise exclusive rights chease.

However, we believe that the fascination of trademark and design caused not only high prices which are often not followed by the appropriate quality of goods - mutatis mutandis of service - but it is one of the causes of the present recession. In fact, the market pays more attention to the

²⁷⁶ Ig: Microsoft which is recognized by the largest ever amount of fines for violation of the rules of competition in the European Union

successful design and markings as the basic values of the company, which comes due to the unduly high price of shares

PRIVATE IPR STRATEGY AND NATIONAL RECOGNATION

An excellent example of good private IPR strategy and state upgrading is a project „Croata,, based on the historical fact that the tie is Croatian invention.

„Did you know that the cravat originates from the Croats,, is a slogan that began the project. The project was not only limited to product design - a tie (Croatian: kravata) as the symbols of the Croatian national and historical identity - which is protected as design - but also the product is conditioned series of moves that led to one of a strong Croatian brand as bellow:



Graphic-Verbal Brand



Verbal Brand

Of course, this brands are protected by trademarks.

Function of the marks – and design too - is not only to familiar consumers with the product - a tie - but also to discover the historical truth about the ingenuity of a small nation – Croats - recognized by the major nations and its contribution to the development of this product. This piece of cloths round a neck, was wearing by Croatian soldiers in the Thirty Years War (1618.-1648.), and recognized as a nice decoration by the French people, who developed it and improved it, and than by the English people, who contributed to the development of a cravat too.

The result ist that the „Cravat,, (tie) became not only the symbol of Croatia that the symbol of Europe or a world, depends on who is talking on, or better who is wearing on²⁷⁷.

What is the symbolism of the tie? According to the authors of mentioned project „the cravat is a universal symbol of elegance and the culture of dressing, but its powerful symbolic potential contains many other values. The vertical cravat symbolizes the human vertical – human dignity and self-awareness, moments of solemnity and ceremony, success and a business spirit... With its lightness on the one hand and the knot on the other, the cravat “binds” together freedom and responsibility. It encourages us to be more aware in our communication of our dignity and the dignity of others - our freedom, but also our responsibility.,,²⁷⁸

²⁷⁷ Kravata (tie) is common custom in male elegance, especially specific professions or specific events or elderer generation

²⁷⁸ <http://academia-cravatica.hr/>

Idea „ Cravat,, led to other projects as²⁷⁹:

- Academia Cravatica which was founded in the year 1997 with „ the mission of promoting the tie or cravat as part of the Croatian, European, and world cultural heritage, and as a special medium of communication. The cravat is the only Croatian symbol which is universally known and appreciated, and at the same time is recognized and acknowledged as a Croatian symbol,
- the installation “The Cravat around the Arena” in Pula on 18th October 2003 - and later in some other countries - as a major world performance,
- Museum of Cravats (in establishing
- Development of special stand for cravats, protected as patent.

The project have received a state support in a terms of promulgation of Cravat Day on 18th October²⁸⁰. The important thing is that the Cravat Day is not only marked in Croatia, the homeland of the tie, than even in some other countries as Japan, Egypt, Italy and Germany.

This project from product to project shows all possibilities of IPR strategy and IPR instruments used to development the brand of company²⁸¹ as well as the brand of Croatia, recognize as the national brand power value for Croatia by the Croatian state.

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²⁸⁰ Promulgated in the year 2006 by Croatian Parliament

²⁸¹ Owner of the brand and other IPR is Potomac Ltd, Zagreb, Croatia

CASE STUDY: MARKETING IN PUBLIC SERVICES – MARKETING STRATEGY OF CROATIAN MINISTRY OF JUSTICE IN THE PROCESS OF REFORMING THE SYSTEM OF JUSTICE

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According to Kotler, public institutions providing services to citizens use marketing in public services as an instrument of managing their relationships with public and instrument of influencing their perception on public institution's purpose and advancement. They also apply different communication strategies if they want to affect the citizen's behaviour, especially in terms of his cooperation and confidence to public institutions. However, public sector also encounters boundaries and limitation in their marketing and communication strategies due to specific services they provide and different social objectives they are trying to achieve, so we can not compare them entirely to marketing in profit-oriented private sector, neither they use same strategies. Public institutions always keep in mind their role in social community and a need to appeal to as wider audience they can, creating strong ties of cooperation and civil initiative. Despite all of the limitations, they could also benefit from their specific position due to accessibility to public and media on many communication levels and channels and public sources of financing. When a public institution faces a challenge of structural reform that has to be presented to public and requires an engagement of whole community, an issue of proper marketing and communication strategy arises. The Republic of Croatia is currently in the accession process to the European Union and one of the most significant reforms conducted by government is reform of the system of justice. It requires a comprehensive and prudent communication strategy on various levels and directed to various social subjects. By using various communication channels and adapting communication and marketing strategy, Croatian Ministry of Justice and government address to the three target groups: European Union and its public institutions, Croatian community of lawyers and law experts and Croatian citizens. The goals of marketing strategy are to engage experts in reform process and to present the objectives and results of judiciary reform to public. This reform also requires high participation of Croatian citizens and successful presentation of its results to European Institutions and European public. One of the key components of success is also redefining reputation and respectability of Croatian judicial institutions in international community, but also in order to influence the confidence and loyalty of Croatian citizens to public institutions. Despite all of the legal criteria, the advancement in this process highly depends on perception of individuals and public. In this paper we analyze who are the most significant carriers in marketing strategy of judicial reform (key communicators), what are the objectives of this strategy and what are the instruments of its realization, who are the target public groups that communication strategy addresses to and how it adapts to each one, which communication channels key communicators choose and how the communication style adapts to these channels. The paper also discusses how successful this strategy has been in past time and what obstacles arise in its realization. Some of the obstacles are very specific and not related to the communication process at all, but rather related to the specificities of services that judiciary system provides, current regulation and social phenomena such as corruption.

Key words: Marketing in Public Services, Communication Strategy, Public Perception, the Process of Reforming the System of Justice

INTRODUCTION

Ever since the closure of Stabilization and Accession Agreement, the Republic of Croatia has taken over a demanding obligation to reform its System of Justice. This is not only an obligation towards international community, but also a legal, political, ethical and moral obligation towards Croatian community and our citizens. The reform of System Justice is now a process exceeding to long-term period and it is conducted under the rule of law, the rules of political reforms and the rules of adapting to the European Acquis Communautaire.

A key prerequisite to the success of reform process is a high quality communication strategy on many levels and oriented to many different target groups. One of the target groups is Croatian legal profession or the public of professionals. Without their cooperation and high participation, it would be almost impossible to conduct the reform successfully. If they were reluctant to accept and exercise the novelties introduced by the reform process into our System of Justice, or if they were not informed enough of them, they would represent a major obstacle to the process. However, if they decided to contribute to the process by offering their professional skills and experiences or the knowledge in specific legal areas, the reform process would be less complicated and short-run.

However, despite all of the professional and legal standards, the succes depends on how the reform is presented to Croatian citizens with reference to what is the concept of communication strategy like. The communication strategy includes these issues: 1. why are the outcomes of this process important to each indivudal or citizen ; 2. how the public and the media percieve the process and the results it has given; 3. how the public and the media percieve the conduct of state institutions which are responsible of planning and excercising the reform. Croatian state institutions note the importance of these issues from the expierence they had with various media and non-governmental organizations research on public perception (e.g. Transparency International annual reports on public perception of corruption).

The state institutions aknowledge the significance of reputation and image they create among Croatian citizens. The most disputed issues are the perception of institutional and political determination to conduct the reform and the perception of institutional achievements and their presentation to the public.

MARKETING IN PUBLIC SERVICES

At first sight, the economic notion of marketing and the public sector functions do not have much in common. Departments for marketing and public relations remind us of multinational corporations, advertising and commercial breaks, either annoying or funny advertisements, retailers and products of mass-consumption such as beer, mobile phones, detergents etc. It is logical to question where is a connection between this type of marketing and public sector and if there is one, what is it like? However, there is the most significant connection from the manner in which a corporation communicates with consumers and the manner in which public sector

communicates with the citizens – the both of them supply consumers / citizens with goods and services, they are concerned with how to fulfill consumer's / citizen's needs and how to influence their perception on success of their performance.

The public institutions function in order to satisfy the needs of citizens and members of their social community. Usually, these needs are the most essential, private human needs such as health, education, the right to be informed or having the sense of justice being served... Public institutions also ensure the stability and prosperity in its community and affirmation of moral and legal principles. Despite all of the differences between public and private sector, public sector can not afford to act irrationally in the economic sense of this word.

As well as corporations, public institutions supply citizens with goods and services. It is logical to imply which target groups are in need of this goods or services, what is the quality of our goods or services like, how big is the gap between citizens' expectation and the perception of what it was given to them. We have to question the costs and the price under which public sector supplies citizens with goods and services, in which manner it supplies them and how it affects state budget and tax payers. Of course, the quality of goods and services given also depend on the quality of human resources in public institutions. These are important incentives to development of marketing in public sector.

However, it is more probable that marketing was introduced to public sector by politicians, and not by the new economic concept of management in public services. Political structures develop specific communication strategies while lobbying or promoting their programmes during election campaigns. Soon after they become official authorities, they take over some of the communication strategies they applied in political marketing and adapt them to official institutional communication strategy. Modern public institutions use marketing and promotion almost to the same extent as corporations, but they adapt them to the role and functions they perform in a specific social community. The most common causes are: 1. getting the public acquainted with novelties and reforms in the system ; 2. motivating the citizens to cooperate with public institutions and increasing the level of participation when required ; 3. influencing the citizens to act and behave in an eligible manner ; 4. creating a desirable image and reputation for the institution.

Who are the key communicators or carriers of marketing strategy in the process of reforming the Croatian System of Justice?

The Republic of Croatia has taken over a political and legal obligation to reform and rebuild its System of Justice. This obligation has risen from the Stabilization and Accession Process, but also from the process of accessing to the European Union and becoming a Member State. There are two institutions who are perceived as the most responsible to conduct the reform with success: the Government of Croatia and Croatian Ministry of Justice. These two institutions have an interesting interrelation in respect of public perception. The Government has taken over a role of political communicator. Its communication strategy is comprehensive and more general because it refers to the widest target group. However, the desirable effects of Government's marketing might be very limited given the circumstances. The Government points out the reform process as an issue of political determination and political success or failure. This is the

crucial reason why the efficiency of its communication strategy depends on political affiliation and preferences of each individual.

Opposite to the perception on Government, the Ministry of Justice is perceived as professional communicator. This perception resulted into domination of Ministry over the Government since the Ministry enjoys different type of reputation and credibility. The citizens are more likely to trust the Ministry than the Government because of the persuasion that the Ministry devotes more attention to professional and legal standard than political one. The Ministry of Justice is not keen to aggressive political marketing and does not compete with political parties and opposition – it appeals to citizens with demand for their participation and cooperation based on the relationship of mutual trust, common facts, legal knowledge, professional experience and professional competence. According to public perception, if there is a difficult problem in public sector which requires reforms or even radical measures, the best solution is to appoint an expert and not a politician. Subsequently, the carriers of communication strategy were separated to the Government taking part as a „political communicator“ and the Ministry of Justice taking part and leading in the communication strategy as a „professional communicator“.

Eventhough the marketing strategy is created by the state institutions mentioned above, at same time the strategy is extremely personalized and embodied in the functions of Prime Minister and the Minister of Justice. The individualization of strategy is more interesting in case of the Minister of Justice. When judging if the reform process is successful or not, the citizens and other target groups do not take into account the political affiliation of the Minister of Justice. They are more interested in personality characteristics, e.g. professional experience and education of the Minister, his prior work and personal ethics and integrity. From the experience with formerly appointed Ministers, we may conclude if the Minister was perceived as a well educated and professional person with strong ethics and values, the reform process was perceived as more successful, and the media were more reluctant to criticize keeping their impartiality. We can support this statement by background of the present Croatian Minister of Justice – who is a former diplomat, a professor at Zagreb Law School and has never been a member of any political party.

THE PROBLEM OF „INCIDENTAL COMMUNICATORS“

The „incidental communicators“ are not official authorities encharged to communicate and present the results of reform process. However, the „incidental communicators“, media, non-government organizations, the judges presiding the courts, court spokesmen etc. have the opportunity and capability to influence public perception on the reform process and „key communicators“ reputation and credibility.

The „incidental communicators“ frequently give opinion on the reform of System of Justice and therefore judge the Government and the Ministry of Justice. Contrary to „key communicators“, they do not have a communication strategy. Their communication activities are random and not characterized by objectives, planning and target groups they wish to appeal to. If they have an objective, it is not the one of promoting the reform. However, their indirect communication activities might have collateral effects on the institutional efforts to promote

changes in the System of Justice. These collateral effects might be both desirable and undesirable from „key communicator's“ point of view.

The most interesting „incidental communicator“ is a court's spokesman. A spokesman is a formal position in the System of Justice. However, his function is not to promote the goals of reform, but to inform impartially the public on many various matters of interest. This institute is rather new to Croatian System of Justice and spokesman's functions are yet to be clearly defined in respect of new, more managerial approach to the organization of courts. Some courts did not appoint a spokesman at all. The results of those who are appointed vary from court to court. A spokesman is not under direct authority of „key communicators“, he is liable only to the Presiding Judge of a Court. Therefore, the deficiency in communication and cooperation between spokesmen and „key communicators“ might be harmful and leaves a possibility to rethink the position of a spokesman and all of the modalities of their integration into formal communication strategy.

Even more harmful might be the communication activities of other „incidental communicators“ such as media and NGO's. The media and civil society analyze and research the functions of public sector as a whole, and therefore they are very interested in proper functioning of the System of Justice. The influence they have on public perception is immense since they have various communication channels at their disposal and easy access to the media and public. Also, their reputation is almost flawless in the perception of public because they are not insiders in the System of Justice, they operate independently and fight for humane causes. The independence and impartiality of the media and NGO's are substantial principles of democracy and therefore „key communicators“ are not allowed to influence their work and communication with the public. Also, influencing them might be meaningless even to the „key communicators“ themselves because eventually these „incidental communicators“ support the goals of reform process by detecting and stressing all of the problems and difficulties in the System of Justice. However, the undesirable collateral effects of their communication activities are surmounted by integrating them into official communication strategy as one of the target groups in marketing strategy. The „key communicators“ are making a lot of effort to build the relationship of trust and partnership with the media and NGO's. Their goal is to make them a proactive participant in the reform process. The media and NGO's mostly cooperate with „key communicators“ in the field of protecting the human rights and suppressing the corruption.

Who are the target groups of marketing strategy in the process of reforming the System of Justice?

The basic target groups of this strategy are: 1. the public – citizens who represent the widest target group ; 2. the public of professional – legal experts, practitioners and scientists ; 3. the media and non-government organizations – civil society ; 4. the media and political structures in the European Union. The communication strategy must adapt to each target group.

THE COMMUNICATION STRATEGY WITH THE PUBLIC

The communication strategy with the public is designed to attain two principal objectives: 1. building citizen's trust and confidence in the System of Justice : 2. increasing public support and participation, not only in the reform process, but continuously in various areas which require

citizen's cooperation (e.g. suppressing the corruption, witness protection, suppressing drug abuse, juvenile delinquency etc.). In this target group, a unique marketing concept is based on the mutual trust and partnership with the citizens.

The public perception on the System of Justice is being formed from their personal opinion of the System as a whole, as well as from private, personal experiences of each individual with the System. The effects of marketing activities in individual cases are very limited since every individual case is being resolved strictly by law. E.g. judge's attitude towards the counsels in individual case proceedings is out of «key communicators» control. The communication strategy can not affect this aspect of judicial system.

Subsequently, the communication strategy with the public is general, comprehensive and appeals to the widest group of citizens as possible. The «key communicators» take advantage of as many communication channels and mediums they can. The fundamental communication channels in this target group are the media: television, radio, Internet, newspaper and direct communication with the citizens. The communication mediums being used are public conferences, discussion panels, interviews, advertisements, promotional video-clips, billboards, brochures, web pages designs, informative material etc.

The communication strategy with the public is of a planned and continuous character. However, depending on occasion, the communication becomes more intense. This usually happens when „the key communicators“ are introducing a novelty in the System, or they want to react and respond to a certain development or information coming outside the System.

THE COMMUNICATION STRATEGY WITH THE MEDIA AND NON-GOVERNMENT ORGANIZATIONS

The communication strategy with the media and NGO's is very similar to the strategy with the public since „key communicators“ apply the same principles of partnership and cooperation in this target group as well. But, „the key communicators“ have to adapt to their role of „incidental communicators“. Being an incidental communicator in this case creates a potential zone of conflict with „key communicators“ in matters of disagreement about the reform process. In order to neutralize the harmful effects of this conflict and undesirable collateral effects of „incidental communicator's“ activities, the „key communicators“ try to involve them in the process inviting them to cooperate and assist when needed. However, there are still enough opportunities to improve the relationship with the media and non-government organizations, both on formal and informal level. The „key communicators“ should develop specialized departments and personnel in charge of the communication and keeping contacts with members of this target group. Throughout the institutional cooperation, it might be possible to create informal network of contacts with this target group. The best solution here is to avoid conflicts on one side, and encourage partnership and cooperation on the other.

THE COMMUNICATION STRATEGY WITH LEGAL PROFESSIONALS

This target group is very specific and traditional attractive forms of marketing are not appropriate for members of legal profession. However, the target group is essential to the success of reform process. Legal professionals must be motivated and educated enough to enforce new laws and novelties introduced. They also need time to adapt to new rules in the System. On the

other side, some of them are already experts who can contribute to the process. If they did not perceive personally the reform as a common purpose, it would be a complete failure.

Traditional communication channels and mediums such as television, Internet, advertisements etc. are not appropriate for this target group since legal professionals in the System of Justice are very formal and pay attention only to professional and scientific standards. The traditional activities of promotional and aggressive marketing might have even the opposite effects from what is considered to be eligible. The best way to approach them is through educational and professional meetings, seminars, discussion panels etc. where legal professionals have an opportunity to exchange experience and knowledge as peers do. Taking into account these circumstances, the Ministry of Justice have founded the Judicial Academy – a place for legal professional to educate and improve themselves exchanging ideas, even with their colleagues abroad.

THE COMMUNICATION STRATEGY WITH THE EUROPEAN UNION POLITICAL STRUCTURES

This target group is the least influenced by the «key communicators» marketing strategy. This is a result of natural determinants of accession process to the European Union. The communication strategy can not be comprehensive and unique since there is a big interference with the Ministry of Foreign Affairs, diplomatic services and many other informal contacts and networks of politicians throughout the EU. This target group is also not very tolerant of traditional promotional marketing as we have noticed in the target group of legal professionals. Traditional marketing might be also inappropriate if it tends to exaggeration because the European Union has many operative services with the capacity to screen and monitor any developments in the System of Justice and the reform process itself, providing a clear insight.

The most appropriate way to promote the reform among EU political structures is a subtle diplomacy and informal political contacts. Any kind of formal contacts and relations should be conducted by the domestic services who are highly professional and specialized exclusively for this matter.

The communication strategy should always be governed by the principles of partnership and cooperation with EU institutions. The final objective in this target group must be a correct and honest presentation of all the achievements, results and fulfilled duties in the reform process with reference to the accession.

THE GIVEN DETERMINANTS AND LIMITATIONS IN MARKETING OF THE SYSTEM OF JUSTICE

Despite all of the efforts to promote the goals and objectives of the reform, to encourage citizen's confidence in institutions, to present what was achieved and what is yet to be accomplished, there are some communication channels and mediums out of the «key communicators» area of influence. The lack of control on this area is a result of the System's specific characteristics or given determinants. Some of them might be eliminated in the future, and other are here to stay as System's unavoidable circumstances.

The first and common given limitation is a necessity to adapt the marketing strategy to the nature of services provided by the public sector with the distinction from corporate marketing.

Second limitation are the effects of given statements on individual case proceedings which can not be included by the communication strategy as mentioned before. Possible interventions in this area would represent an unlawful conduct.

Third group of limitations, and the most criticized one, comes out of the Croatian positive regulation – Penal Code and Law on Criminal Procedure which prohibit public commentaries on unvalidated court rulings and disclosure of information collected during the criminal investigation. These provisions are highly disputed even among the legal professionals and especially by the media. The provisions actually allow total absence of any kind of communication outside the System of Justice whenever the official authorities decide it.

CONCLUSION

The principal goal of this paper was to explain the necessity of marketing in public sector. This case study has shown in what way the marketing strategy might be adapted to public sector successfully and what obstacles might show up while enforcing it. For us it was essential to point out that marketing strategies in public sector can be very inspirative, rich with variety and a smart support remedy for public institutions to achieve their goals. Thereby, at the end of our paper, we enclose a typical example of marketing in public sector appealing to the members of our society to work together in order to accomplish a common purpose for all of us.



Source: www.antikorupcija.hr (website accessed on July 15th, 2009.)

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HOW ETHNOCENTRIC TENDENCIES INFLUENCE THE ADAPTABILITY OF MARKETING STRATEGIES IN INTERNATIONAL TRADE

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International trade liberalization focuses on similarities in consumer's behaviour, while the local paradigm points out the variety of different and specific consumer's needs. International marketing is being challenged by the struggle between two opposite concepts of international trade – liberalization and protectionism. Both concepts impose a necessary choice between global and local marketing strategies which represents only a rude simplification of what is ought to be a holistic, profound, thorough and adaptable marketing strategy which takes into account all the differences and variety on the global market.

In global economy, the variety of modern world is manifested by rising ethnocentric tendencies. Ethnocentrism is justified by political and cultural factors, as well as determined by the consumer's behaviour and one's private needs.

This paper analyzes the effect of cultural factors in consumer's behaviour on international trade, especially in respect of the religious tendencies, and all the means of adapting the marketing strategy accordingly. The paper is based on the authors' authentic research conducted among the Croatian managers with a view to their opinion on consumer's ethnocentrism.

Key words: international trade and international marketing, consumer's ethnocentrism, adaptable marketing strategies

INTRODUCTION

The orthodox theories of international trade are focused on national economies and intersectoral trade of homogenous, undifferentiated goods. However, the modern, so called firm theories are focused on the role and influence of companies in international trade. Globalization and liberalization represent a convenient environment to the companies. However, companies more often do business with companies and countries in their nearby as well as with traditional trade partners. Therefore, regionalism in international trade rises simultaneous to the globalization and liberalization processes. The international paradigm assumes that all consumers behave alike, opposite to the local paradigm which points out all the differences and variety in consumer's behaviour. Despite that, local paradigm does not confront with globalization and the concept of international market. If companies acknowledge the basic assumptions of regionalism and local paradigm, they would be able to turn them into comparative advantage. Consideration given to the cultural variety of modern world makes further incentive to better understanding of consumer's behaviour. Religious factors influence, no matter if varies from negative to positive, corresponds to the system of values of each individual affecting the consumer's purchase decision.

CONSUMER'S ETHNOCENTRISM

Consumer's ethnocentrism develops from differing individual attitudes, values and personal persuasions among consumers encouraged by paradox processes of political disintegration and regionalism which accompany the globalization process. Ethnocentrism reflects tradition, culture, religion, historical heritage, political situation context, social values, as well as individual predispositions. Accordingly, it influences consumer's decision on individual purchase of goods and services. Research on this matter indicates that ethnocentrism encourages self-imposed social isolation and perception of national superiority.²⁸² However, ethnocentrism became a rising tendency as an inevitable result of global integration and liberalization since it can not develop in isolated social communities.

However, modern theories do not presuppose a relation between ethnocentrism and hostile attitude towards other nationalities or cultures. Hostility, either reluctance to buy certain products motivated by ethnocentrism, depends on the context of social situation and motivational functions such as social relationships and inter-group self-identification.²⁸³

Many research and surveys have shown that consumer's ethnocentrism corresponds to religious beliefs and attitudes taking part in a higher, more general system of values.²⁸⁴ Religion has a continuous ethnocentric effect, on occasion either positive or negative.

In order to keep their present market position and gain access to new markets, companies have put consumer's needs in center of marketing strategies. Delivering a certain product or service to a satisfied customer, now represents a final step in a long process that starts with research on consumer behaviour, perception and needs. In order to understand what determines consumer behaviour, almost every company on global market takes care of consumer's preferences in respect of one's attitudes, beliefs, aspirations, needs and perception.

A consumer acts with economic rationality, but his actions are also determined by many other factors. Philip Kotler classifies factors which influence consumer behaviour into personal, social and cultural factors, especially emphasizing culture²⁸⁵. This statement does not lead companies to target consumers who are perceived as „desirable“ to their products or services, but motivates companies to deliver desirable goods or services to many various consumers.

Consumer's ethnocentric behaviour started to intrigue economists in respect of deregulation and liberalization of international trade. While many administrative and tariff barriers were

²⁸² Šram, Z.: *Etnocentrizam, autoritarne tendencije i religioznost*, Migracijske i etničke teme 24 , 2008., 1-2; p. 49-66.

²⁸³ Brewer, M.B.: *Perpetrators of prejudice. The psychology of prejudice: in-group love and outgroup hate?*, Journal of Social Sciences 55, No. 3, 1999., p. 429-444.

²⁸⁴ Fine-Davis, M.: *Attitudes toward the role of women as part of a larger belief system*, Political Psychology, 10, No. 2, 1989., p. 287-308.

Roccas, S.: *Religion and value system*, Journal of Social Issues, 61, No. 4, 2005., p. 747-759.

Nakano, T.: *Theorising economic nationalism*, 10, No. 3, 2004., p. 211-229.

Labus, M.: *Vrijednosne orijentacije i religioznost*, Sociologija sela, 43, No. 2, 2005., p. 383-408.

²⁸⁵ Kotler, Ph., Wong, V., Saunders, J., Armstrong, G.: *Osnove marketinga*, MATE, Zagreb, 2007.

successfully removed, ethnocentric tendencies have become the most important non-tariff barrier reflecting consumer's attitude toward foreign (or specific) products and revealing government protectionism. The notion of consumer's ethnocentrism was first introduced by Terence A. Shimp and Subhash Sharma in 1987 in order to illustrate American consumer's attitude toward foreign products²⁸⁶. They have also developed a measurement instrument on consumer's ethnocentrism called CETSCALE – Consumer Ethnocentric Tendency Scale. In order to differentiate ethnocentric consumers from non-ethnocentric, scientists have also developed the so called EP-SCALE.²⁸⁷

Research have shown that ethnocentric consumers are more reluctant to purchase foreign products, while non-ethnocentric ones are more pragmatic when deciding. Ethnocentric consumers give a higher meaning to their decision. Example given, by buying domestic products, they give support to their national economy. Multinational companies at first identified ethnocentrism as potential obstacle to successful business abroad. However, research conducted on given matter has soon persuaded them otherwise. Adapting marketing strategies and access policies to new markets enables a company to turn ethnocentric barriers into a competitive advantage adding new value to company's both image and brand. Even if companies do not recognize the importance of ethnocentrism, eventually they will have to

²⁸⁶ Shimp, T. A. & Sharma, S.: *Consumer Ethnocentrism: Construction and Validation of the CETSCALE*, Journal of Marketing Research, 1987., p. 282.

²⁸⁷ Valance, G., d'Astous, A. and Fortier, L.: *Compulsive Buying: Concept and Measurement*, Journal of Consumer Policy 11, 1988., str. 419-433.

Faber, J.R. and O'Guinn, C.T.: *A Clinical Screener for Compulsive Buying*, Journal of Consumer Research 19. 1992., str. 459-469.

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Sun, T., Horn, M. and Merritt, D.: *Values and lifestyles of individualists and collectivists: a case study on Chinese, Japanese, British and US consumers*, Journal of Consumer marketing, Vol. 21, Emerald Group Publishing Limited, 2004. pp. 318-331.

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confront it when accessing traditional markets. These markets institutionalize ethnocentric tendencies enforcing them as obligatory import requirements.

It is advisable for companies to adapt to ethnocentric consumer behaviour, but ethnocentrism is sometimes very questionable if it transforms to governmental, institutionalized ethnocentrism. Many of such public actions, example given «Buy American» were criticized as a new form of state protectionism. Very similar Irish campaign in 80's was condemned by European Union authorities and argued from position of free market.

RELIGIOUS INFLUENCES ON CONSUMER'S ETHNOCENTRISM

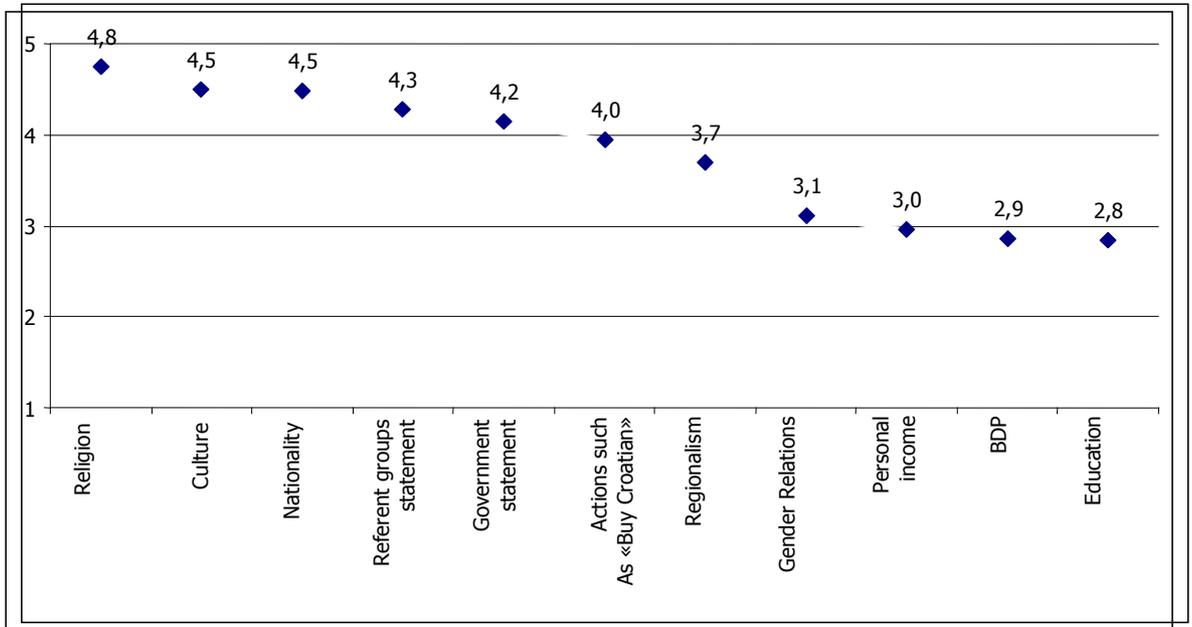
Consumer's preferences and habits are influenced by interference of various factors so consumers ought to be perceived as complexed beings. Accordingly, new microeconomics theories are trying to analyze some phenomenons that even can not be measured in terms of mathematics or statistics. However, consumer's satisfaction and perception can be analyzed and measured introducing questions about the effects of culture, religion or some other element on their behaviour. Example given, an important study on attitude toward modern marketing and advertising conducted within a group of Muslim consumers and a group of Christians gave interesting results – both groups have very similar attitudes about modern marketing strategies that companies enforce, but have shown differing attitudes toward exploitation of religion in marketing²⁸⁸.

The assumption that economic progress and new technologies would make religion irrelevant was disputed since Muslim population worldwide has kept ethnocentric tendencies under influence of religion, even regardless to age, sex, income class, geographical position and state of development. Therefore, religion influences purchase decision on a daily basis, as well as companies adapt bussines activites and strategies to majority Muslim markets. Religious consumers pay attention to every aspect of producer's bussines – from advertising, image, approved certificates, packaging, distribution et cetera. If not approved by religious authorities, these producers might be ignored by ethnocentric consumers.

Therefore, multinational companies, especially food producers, adapt brands to local environment. Religious ethnocentrism prohibits consumption of specific food and products which are not in accordance to religious standards. Companies have adapted to this kind of ethnocentrism introducing certificates (such as Halal and Kosher) which guarantee that a product complies to religious requirements. Many Croatian companies have certificated their products since Croatian primary export market is Bosnia and Herzegovina, a country with significant Muslim population.

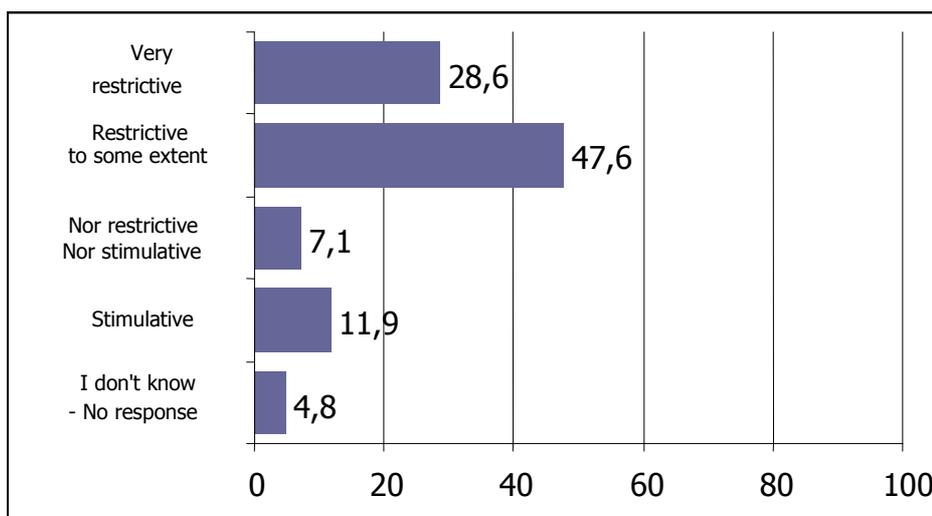
With a view to how many Croatian companies have aknowledged adjustment to potentially ethnocentric markets, we have researched what kind of attitude Croatian managers have on consumer's ethnocentrism. The research was conducted on a focus group of 50 Croatian managers who were randomly selected from the Croatian Export Directory to answer specially designed questionnaire.

²⁸⁸ Gibbs, P., Ilkan, M., Pouloukas, S.: *The ethics of marketing in Muslim and Christian communities: Insights for global marketing*, Equal opportunities international, Vol. 26, No. 7, 2007., p. 678-692.

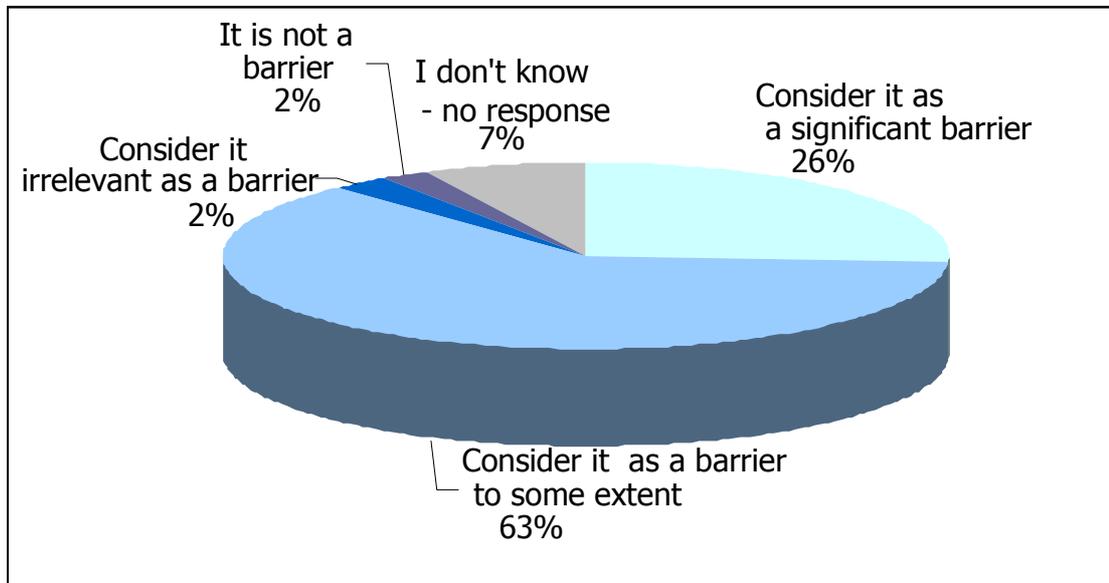


Graph 1: Q – In Your opinion, what factors influence ethnocentric tendencies in international trade?

From the graph, we can easily conclude that in manager's opinion, religion, culture, nationality, referent groups and forms of government protectionism influence the most rising ethnocentric tendencies.

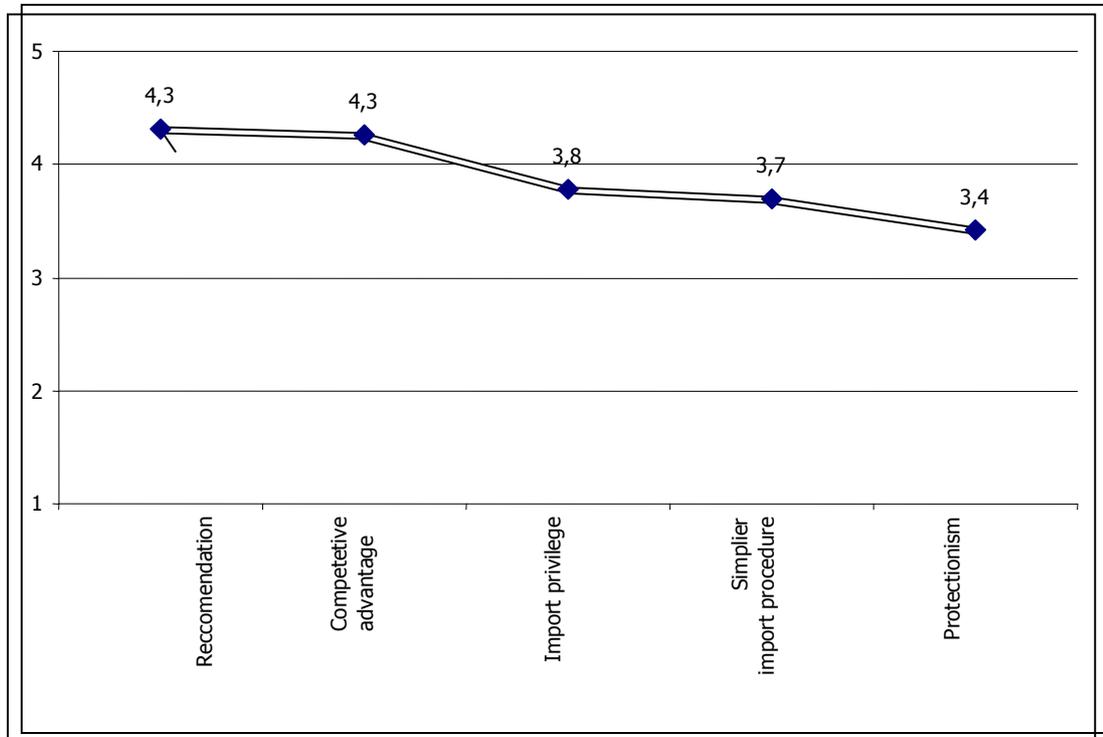


Graph 2: Q – How do You percieve religious ethnocentrism?



Graph 3: Q – Do You percieve religious ethnocentrism as a barrier in international trade

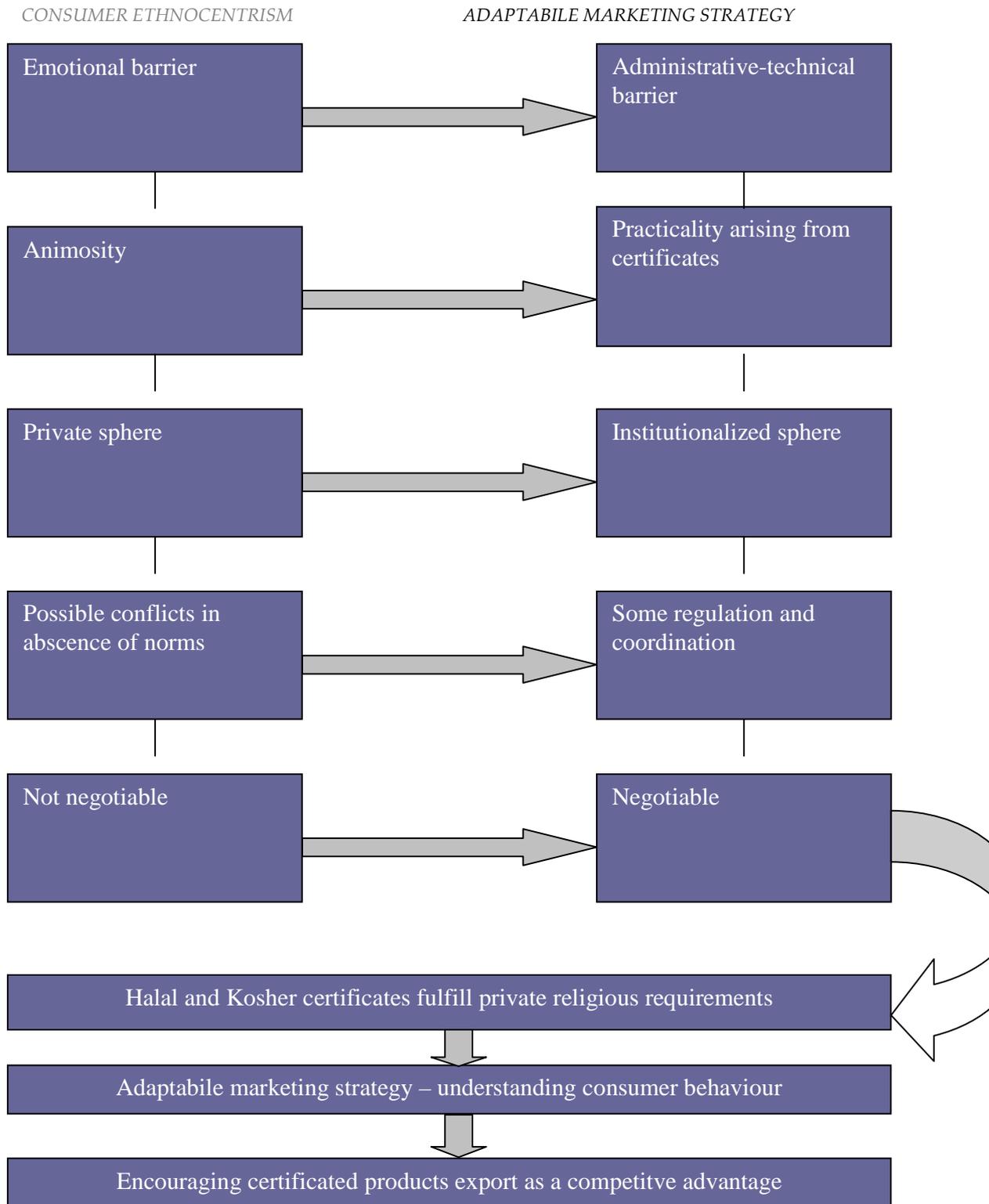
From Graph 2 and 3 we have concluded that the most of Croatian managers percieve religious ethnocentrism as a restrictive barrier in international trade.



Graph 4: Q – How do You percieve Halal and Kosher certificates in respect of adaptable marketing strategies

CONCLUSION

International market is extremely competitive environments. In order to gain competitive advantages on this market, companies ought to understand what motivates and determines customer's actions and consumer behaviour. We emphasize that it is very important to adapt marketing strategies in terms of consumer's local environment determined by religion, culture and other important social factors. This statement refers to the new, holistic and adaptable marketing that respects the variety of modern consumer body on what is most frequently referred to as a deregulated international market.



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DEVELOPMENT MODELS OF CATHOLIC SANCTUARY-TOWNS

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My paper will cover the impact of visitors/religious tourists on four Catholic international towns in Western Europe.

In this paper, four Catholic sanctuary-towns, founded after the apparitions of the Virgin Mary, Banneux in Belgium (1933), Fatima in Portugal (1917), Knock in Ireland (1879), and Lourdes in France (1858), will be compared in terms of urban development. I will argue that these sanctuary-towns represent two different evolutionary situations: one associated with successful development and marketing and the other with weaknesses in planning and marketing.

Looking at the development and marketing strategies of these four sanctuary-towns, one may notice that the larger they became, as better known they are abroad.

In fact, as in most tourism destinies, there is a simple rule – services are created in order to answer the needs of the pilgrims/tourists going to the sanctuary-towns.

A systematized information interpretation allowed to build a model concerning the stage of development of a sanctuary-town.

To confirm the success of the previous model, a second model was built based on Butler's model (1980); the main goal of this adaptation is to visualize the evolution curve of the four sanctuary-towns simultaneously.

The variables considered in this second model are: millions of visitors; time; temples; accommodation and shopping.

After the presentation of both models, I'll be able to argue that in Banneux and in Knock (not Mediterranean sanctuary-towns), after the exploration stage and some involvement of the local population, a set of conditions did not occur, so neither Banneux nor Knock moved on to the development stage.

In Fatima and Lourdes (Mediterranean sanctuary-towns), there was a natural progression, without any kind of serious interruptions, confirming the Butler's Model from the exploration until the stabilisation stage. For these reasons, it is possible to say that these two towns represent successful cases both in the tourism and evangelization fields.

Keywords: Development of Sanctuary-Towns; Butler's Model (1980); Banneux; Fatima; Knock; Lourdes.

**EXPLORING CREATIVELY THE HUMAN RESOURCE MANAGEMENT – AS AN
INTELLIGENT SOLUTION IN IMPROVING THE LOGISTICS SERVICE PROVIDERS IN
CRISIS**

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¹*ASE Bucharest, Romania*

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The 2008 and 2009 financial crisis is hitting systemically hard in all companies' budgets: revenues, expenses, and sales. These are difficult times for all market participants and innovation may play the role of the main engine differentiating companies.

This paper is focused on the state-of-art of logistics by creatively exploring the Human Resources Management, in order to reduce labor costs, increase work efficiency, boost human productivity, find new work practices, such as problem-solving teams, enhanced communication with workers, employment security, flexibility in job assignments, training workers for multiple jobs, and greater reliance on incentive pay.

To study it, we constructed a data base for 2 multinational companies in the logistics sector; we collected data with precise measures on productivity, work practices in the warehouses and production lines.

The empirical results consistently support the following conclusion: the adoption of a coherent system of these new work practices, including work teams, flexible job assignments, employment security, training in multiple jobs, and extensive reliance on incentive pay, produces substantially higher levels of productivity than the 'traditional' approaches involving narrow job definitions, strict work rules, and hourly pay with close supervision. By contrast, adopting individual work practice innovations in isolation has no effect on productivity.

This evidence can be interpreted as a revolutionary alternative towards creative logistics within the Human Resources Management.

Keywords: human resources management, creative logistics, complex innovation

JEL Classification: O15, O31, R41 and R48

ETHNOCENTRISM, THE VILLAIN FOR CROSS-CULTURAL KNOWLEDGE TRANSFER IN EASTERN-WESTERN EUROPEAN CO-OPERATIONS

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The paramount importance of knowledge for companies in the 21st century related to innovation, development and growth was highlighted, for example, by the World Economic Forum in Davos, Switzerland 2001 (Holden and Tansley, 2007). Therefore, successful knowledge transfer between international business co-operations has become the focus of attention.

In this context, knowledge transfer (KT) refers "to the cross-cultural, cross-border and cross-organizational processes whereby information, ideas and practices move between two different business systems" (Clark & Geppert, 2002, p.264). The way the knowledge is transferred conditions or facilitates not only the understanding, but also the acceptance, the efficiency and its cognitive legitimation. Semantically, transfer refers merely to a process of direction, where the origin and destination is known, however, with holistic influential factors and effective methodology remaining unknown and often insufficiently considered.

Western knowledge transmitters often show a lack of cultural sensitivity who apply ethnocentric one way processes underestimating the understanding of the structural influences of cultural variants and being unprepared for international missions (Marcic, 1995; Darby, 1995; Tsang, 1999; Clark & Geppert, 2002; Hoecklin, 1994; Lang & Steger, 2002;). This ethnocentric behaviour lacking cultural awareness and preparation leads to a knowledge structuralist perspective defined as "a formal, uncontested process whereby ideas move directly from Western source to post-socialist destination" (Clark & Geppert, 2002 p.268). Implicitly, knowledge senders assume that knowledge receiving companies have to integrate Western best practice unquestioned. The reasons for that are provided in that Eastern companies lack managerial knowledge as a consequence of their political past.

However, if the learning process is done by imitation and performed solely to please the formal requirements implying at best the adoption of new practice, a behavioural change achieved by single loop learning, without any reflection, criticism, appreciation and, most importantly, application of new knowledge, no real cognitive learning can flourish. Compounding the matter, it might undermine the willingness to learn as suggested by Child and Czegledy (1996). Criticism as to this ethnocentrism is addressed by Hutchings and Michailova (2004) implying the lack of research on reciprocal learning and reciprocal exchange of knowledge. They argue that knowledge can also flow from Eastern partners to Western partners. Concordantly, Holden (2002) calls this lack of research the literature grand lacunae. Finally, Riege (2007) complains about the shortcomings in empirical evidence providing guidance of how to dismantle Eastern- Western knowledge transfer barriers. Interestingly, Wolf and Vollmer (2007) suggest communities of practice towards a more integrative creation of knowledge in this context.

Methodology - Qualitative research following a phenomenological approach was applied in order to understand social realities based on people's experiences and the meaning attached to them. Grounded theory was used to generate and analyse data for theory creation (Strauss and Corbin, 1998) due to the lack of existing literature. This requires the emersion of the researcher into the field for gaining insight and a depth of understanding of the problem's complexity (Charmaz, 2000; Bryant, 2003). For the data collection theoretical sampling was chosen, with all the participants being

involved in intercultural KT. 23 in-depth interviews, participant and non participant observation and 4 focus groups were conducted in Russia and Austria.

Eastern Findings - This abstract presents secondary and primary research findings which shed light on the negative effects of ethnocentrism in KT between Eastern and Western European business co-operations and how those can be overcome. Eastern interviewees showed negative reactions as well as negative facial expressions related to their Western knowledge transmitter. They stressed feelings of depreciation created by Western partners who come to them with a superiority complex. This superiority, coupled with underestimation of the partners leads only to a bad end. In some cases criticism relates to the authoritarian depreciation of Russian knowledge hurting their pride. Furthermore, lacking cultural sympathy, interest and understanding of Russian realities could be identified. Finally, high expectations difficult to be fulfilled by Eastern Europeans explain why people in Eastern Europe develop manifest reluctant attitudes in accepting and/or integrating Western knowledge and processes.

Western findings - The imperialistic attitude, as several respondents named it, was intensively discussed with Westerners. The many different comments, attitudes and experiences ranged from admitting this still existing attitude, reflection on it, self criticism and to a final rejection of it.

The human behaviour and the attitude towards the way of transferring knowledge have to be very carefully observed. Especially, certain attitudes like displaying arrogance, imposing behaviour or not allowing for the receivers' own space of action were seen as having detrimental consequences. Analogies referring to the 'master and the servant', or you the 'Goliath and the David' were used by respondents to express self explanatory feelings during the KT co-operation. Westerners identified a low absorptive capacity, lack of motivation and resistance to learn as negative attitudes from the Eastern partners hampering the KT process.

Finally, most of the respondents called for an urgent change towards a more reciprocal and integrative KT and developing skills like emotional intelligence which will entail better and quicker learning outcomes leading to better economic success.

Keywords: Intercultural knowledge transfer, ethnocentrism, European Co-operations

Classification: Research paper

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ORGANIZATIONAL FACTORS AND ABSENTEEISM OR INTENT TO LEAVE: A COMPARISON BETWEEN YOUNG AND OLD AGE WORKERS

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Purpose - In a previous paper (Bouville, 2008), we analyzed the relationships between organizational factors and absenteeism-intent to leave for old age workers (seniors). In this paper, we will compare our previous results on old age workers with a population of young age workers (under thirty years old). Indeed, this type of empirical research based on a comparison between different workers population has seldom been done before in the absenteeism literature (Johns, 2003) and is even rarer in the intent to leave literature. *The goal of the research is to understand what the relationships are for young age workers between organizational factors in one hand and absenteeism and intent to leave in the other hand, and to compare these results with those on old age workers. The other goal of the study is to examine the degree to which health at work and job satisfaction mediates the relationship between organizational factors in one hand and absenteeism and intent to leave in the other hand, for young age workers.*

Design/methodology/approach - This research analyzed both work organization and working conditions factors relative to sickness absence and intent to leave. The organizational variables are as follows:

<p>Work organization Time pressure, skill variety, monotonous work, hierarchical control, support from colleagues and supervisor, post rotation, shift work, flexible schedule, working hours</p>	<p>Working conditions Painful postures, noise and thermal nuisances, tension with the public, aggression from the public, bullying</p>
<p>Confounding variables Size of the organization, work sector, gender, age, tenure, work status, social and occupation group, position</p>	

The approach taken is a quantitative analysis on a total of 5239 young age workers (under thirty years old) with a multinomial Logit model. Absenteeism was measured by the number of self-reported sickness absence days within the previous 12 months. This variable was divided in five categories: 0 day, temporary absence: 1-3 days, short sickness absence: 4-7 days, middle sickness absence: 8-15 days, long sickness absence: +16 days. To test the effects of mediators (job satisfaction and health at work), we use the Baron and Kenny (1986) procedure.

Findings – Compared to old age workers, some organizational factors (monotony, autonomy, post rotation, shift work, working hours, time pressure, and thermal pollutions) have a strong impact on absenteeism and intent to leave of young age workers. Furthermore, the links between some of this organizational factors and absenteeism-intent to leave is mediated by job satisfaction and health at work.

Practical implications – We emphasize the importance of Human Resources Practices differentiated for old age and young age workers. A way to increase fidelity of young workers is to improve work

organization: development of autonomy, skill variety, and supervisor support, alleviation of time pressure, and shift work. For seniors, implementation of flexible schedule and alleviation of hierarchical control can lead to a decrease of absenteeism. For both young and old age workers, managers have to strongly tackle workplace bullying and violence at work from the public.

Originality/value – The interest of the study is to examine the relations between a large set of organizational factors (including bullying, tension with the public, aggression from the public) and absenteeism or intent to leave after controlling for many variables (size of the organization, work sector, gender, age, tenure, work status, social and occupation group, and position) and to compare the results on young age workers with those on old age workers. Also, we compare the explicative power of two mediators (job satisfaction and health at work) in the relationships between organizational factors and different lengths of sickness absence or intent to leave. Further research could focus on examining in more details differences the impact of organizational factors on absenteeism or intent to leave between young and old age workers.

Keywords: Comparison between old age and young age workers, absenteeism, intent to leave, work organization, working conditions

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SHOULD THE ITALIAN WINE SECTOR BE WORRIED ABOUT THE NEW COMMON MARKET ORGANIZATION?

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Purpose: In order to face the increasing competition in the global wine sector, the European Union is bringing into action a new Common Market Organization (CMO), which will be applied for the first time in its entirety only since the productive campaign 2009/2010. Therefore, it is fundamental to predict how the different markets will react to these changes, analysing, among other elements, the factors, which have been recently influencing consumers' loyalty towards wine attributes. In particular, the purpose of the present work is to understand how the new CMO will impact preferences of Italian wine consumers, by observing loyalty levels to the purchases of wine made by a representative sample of the population in the retail sector (35% of sales by volume and 60% by value in 2008). The purchases have been recorded for six years (2003-2008), but they have been split in two three-year periods: 2003-2005 and 2006-2008. Loyalty levels towards three product attributes (prices, formats and quality designations) for the two three-year periods are separately calculated and subsequently confronted.

Design/Methodology/Approach: Loyalty analysis is conducted through the *polarization index* (ϕ). Due to space limitations, it is not possible to go into the details of the model – see Jarvis *et al.* (2006) for further information. It is, however, important to say that the index is derived from the application of the Beta Binomial Distribution (BBD) model to the actual purchases made by consumers of certain brands and/or product attributes and levels over a defined interval time. The analysis can then focus on the deviations of the loyalty for each brand (or level of the attribute) from the average or benchmark loyalty level – also called *category polarization index* (ϕ_c) or *DMD value*. The name *DMD value* derives from the fact that latter can be estimated by fitting a Dirichlet Multinomial Distribution (DMD), which represents the multivariate counterpart of the BBD, to the data. Both the BBD and the DMD values range from 0 (maximum disloyalty) to 1 (maximum loyalty).

Findings: The observation of loyalty levels shows that the format in which the wine is purchased continues to represent the attribute to which Italian consumers devote the highest loyalty, followed by the quality designation that appears on the label and by price tiers. However, it is interesting to observe that while loyalty to price tiers has increased between the two interval times, loyalty to quality designations and formats has decreased. The Bag-in-Box format has almost disappeared from the market, the purchases of 0.75litres bottles have increased in terms of loyalty and market shares, while >0.75litres & ≤1.5litres formats have only lost few percentage points in volume terms. The consumption of table wines has decreased, substituted by DOC-DOCG and GI wines. However, instead of observing an increase in the price tiers theoretically associated with higher quality attribute levels (e.g. 0.75litres bottles, DOC-DOCG or GI wines), we have noted that the €5-€7 tiers has been partly cannibalized by the popular premium segment and partly substituted by the basic price tier.

Research Limitations: The polarization index operates with the certainty that all the levels for the 3 attributes under analysis were present when consumers made their purchases given the wide offer that the majority of modern distribution points of sales have for the wine sector. However, this cannot be proved.

Managerial Implications: From a managerial perspective, the analysis suggest that 319 DOC&DOCG are not sustainable over time, as several of them cannot count on a background and a mass critical enough to justify the costs necessary to maintain and/or modify the current codes of production. Unless a producer is in an area eligible for the production of a DOC/DOCG able to create, deliver and communicate a high value to customers (e.g. Amarone della Valpolicella, Brunello di Montalcino, Fiano di Avellino, etc.), he/she would make a better choice by deciding to product a varietal wine or one with a geographical indication (GI). In doing so, a producer can reduce production costs and more easily adapt wine styles to the ever changing tastes of consumers. Moreover, it would be a strategic mistake to let only New World (NW) Countries make wines with Italian grape varieties (e.g. Sangiovese, Nebbiolo, Sagrantino, etc.) and indicate them on labels, given that these varieties belong to the Italian wine tradition and, as such, should generate a competitive advantage to Italy at first.

Originality/Value: To the best of our knowledge the polarization index has never been applied in a dynamic perspective, but it has always been used as a way to analyse the behavioural loyalty of customers in a defined interval time. Moreover, the observation of actual habits over a long time period offers a powerful means to the actors of the whole supply chain to consistently predict future market trends.

Abstract Category: Research Paper

Key Words: Evolution of Behavioural Loyalty, Beta Binomial Distribution, Common Market Organization (CMO), Polarization Index, Retail Sector.

**SUSTAINABLE DEVELOPMENT:
FROM AN ABSOLUTE POINT OF VIEW TO A RELATIVE ONE**

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Purpose - the aim is to present a concept of relative sustainable development that is linked to a specific environment; this concept refers to the Italian mining sector. The need for a new conceptualisation derives from the fact that an absolute value to the sustainable development forces to lose sight of the specific environment in which it was inserted.

Design/Methodology/Approach - on the basis on meetings conducted with professionals of the mining sector, a model that describes the economic environment has been developed. In addition, specific problems that characterise the Italian case (e.g. the drop in mining production, the poor professional training, the anachronistic set of rules, the syndrome NIMBY, the poor dissemination of mining culture) have been considered.

Findings - it has been demonstrated that the sustainable development is a relative concept which is inevitably linked to the context. In other words, an unequivocal definition of the concept does not exist. In fact, different definitions are possible on the basis of the importance that is given to economic, environmental and social principles.

Originality/Value - differently than before, sustainable development is examined considering the linked environment, not only as a set of natural resources but as a system composed by actors involved in the economic environment which includes a stated political order, a level of technology, and stakeholders. Furthermore, a solution to the problems affecting the Italian mining sector is suggested: i.e. an independent and permanent comparison table with a Scientific Committee that gives support to policymaker, disseminate culture in the local communities and harmonize the set of rules etc. would be useful.

Keywords - Sustainable development, economic environment model, mining activity.

Classification - Conceptual paper

THE RELATIONSHIP BETWEEN EUROPEAN TOURISTS' LOYALTY AND THE PERCEIVED IMAGE OF TUNISIA: APPLIED LOGIT MODEL

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Over the past three decades, considerable research has dealt with destination choice issues (Park et al., 2004; Hosany et al., 2006; Gallanza et al., 2002; Lee et al., 2005 and MacKay et al., 2006). However literature on the subject of loyalty to destinations by tourists is limited and the extent to which frequently visiting tourists can be perceived as loyal has not been clearly identified (Kozak, 2001).

Scholars have adopted a variety of approaches to address the problems and issues surrounding customer loyalty. Chen et al. (2001) study the relationship between tourists' destination loyalty and their preferences to destinations. In addressing issues surrounding customer loyalty, one of the main challenges for tourism managers lies in understanding the patterns of tourists' behaviour (Castro et al., 2005, Hallowell et al., 1996 and Crompton, 2000).

Alegre et al. (2006)'s research study indicate the explanatory power of repeat visitation, knowledge, and quality of a place as a motivation for tourist expenditure. Murphy et al. (2000), identify that quality as measured by overall satisfaction, is a key predictor of visitor intention to return within two years. Bosque et al. (2006), Baker et al. (2000), and Castro et al. (2007), claim that managers should understand satisfaction as an essential determinant of loyalty.

This research study aims to identify the relationship between European perceived image of Tunisia and their loyalty to the country, by means of questionnaires.

The sample size was identified according to the statistics collected from the Tunisian Tourism Board in 2007 (Le Tourisme Tunisien en Chiffre 2005: the last published when starting the research), and according to which 65 percent of the total number of European arrivals to Tunisia in 2005 were tourists from the UK, Germany, Italy and France. Therefore, in assuming a sampling percentage of 0.05 percent with a response rate of 100 percent (asking people to fill in the questionnaires till we get into the right number) the sample size for the questionnaires was 585 French, 236 Italian, 286 German, and 163 British tourists.

Furthermore, the empirical research consists of the application of a binary Logit model, used to estimate the relationship between the dependent variable (loyalty) and one or more independent and explanatory variables (personal characteristics, perceived elements of Tunisia, and push and pull factors).

the findings suggest that the Logit model was statistically validated for French, Italian, and British respondents, with values of the Mc Fadden R-squared tend to 0.4, respectively R^2 French= 0.17, R^2 Italian= 0.15, and R^2 British = 0.12.

The results of the Logit model, estimating respondents' loyalty to Tunisia, conclude that the perception of Tunisia as a 'luxurious, health and spa' tourism destination, leads to French respondents being loyal to the country. In addition, a 'hot climate' explains the loyalty of British respondents, whilst for Italian respondents, the perception of Tunisia as a 'luxurious, health spa and cultural' tourism destination explains their loyalty to the country.

Key words: Tourists' Loyalty, European tourists, perception, tourism destination, Logit model

DIET AT WORK. AN EXPLORATIVE STUDY ON FOOD CONSUMPTION AT WORK

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Purpose - We start from the idea that food consumption and diet are important elements of human health and wellbeing. In such a sense, it is not surprising that eating and drinking have long been recognised as being of sociological and psychological significance. What still lacks is a serious and scientific investigation on food uses and values, and in particular of food consumption and diets within the working and organizational contexts.

Food at work is an interesting object of research since it allows not only to better know organizational and working contexts but also to do a real action research, planning interventions on nourishment problems and preventing them.

Food and nourishment related problems at work concern, among others, good nutrition (which is, in addition, indispensable for productive working), religion related diets, good work practices.

Our research aims at analysing food consumptions and values within working contexts, starting with the hypothesis that a lot of food and nourishment problems derive from nowadays occupational contexts, with the purpose of suggesting changes in the working contexts in order to prevent diet's problems.

In addition, standing the difficulties at a diet workers have to face, we would like to reflect about the conditions under which diet at work may work; or, in other words, we want to reflect about what are the working and organizational features that may help or damage a diet programme, in order to better intervene in nourishment diseases.

Methodology - After a critical review of the International literature on food at work (which is actually quite scarce), we interviewed a sample of both employers and dieticians. The transcripts have been analysed in qualitative terms. In particular, we did a narrative-metaphoric analysis of transcripts.

Findings - Perhaps the most important result concerns the possibility to cluster jobs and working contexts as being or not at risk in terms of healthy food consumption.

Of particular importance are the organizational facilities in terms of food consumption, which may play a crucial role for an healthy food consumption. In addition, we have found out that also some psychological variables (for example, self efficacy) may have a deep influence on food and diet's problems. Last but not least occupational stress seem to lead to diet problems.

For what concerns interviews, both employers and dieticians seem to recognize how crucial is the working context in terms of an healthy food consumption and diet, even if they are not always capable to foresee practical guidelines to reinforce occupational setting in this sense

Practical Implications - The present study, even if explorative in nature, is full of potential suggestions in terms of institutions' guidelines. We have provided a sort of map of food uses in Italian organizations which may serve as a basis to organize specific training for specific occupational contexts. For example, as it has happen for the Italian Education and university Ministry, also the Work Ministry could start a pilot project on fruit machines/dispensers.

Originality - Food at work is an emerging and original topic per se and, in addition, it may help in planning guidelines for an healthier occupational environment.

OPPOSING POSITIONS IN M&A RESEARCH: CULTURE, INTEGRATION AND PERFORMANCE

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Purpose - Although mergers and acquisitions are still very popular to internationalize quickly, more than 50% are not successful. Strategic fit was found to be an important factor for positive M&A outcomes, however, many scholars highlight the importance of cultural fit and post-M&A integration in recent years. Therefore this paper aims at summarizing findings in this field of research during the last decade and their limitations.

Design/Methodology/Approach - The findings are based on an extensive literature review including 58 papers from 20 learned international journals. Main selection criteria were keywords (merger/acquisitions and integration/culture) applied to the database "EBSCO Business Source Premier" and the h-index calculated with the help of Harzing's Publish or Perish. Each article was coded and categorized by several characteristics. In contrast to classic literature reviews, this procedure allowed for quantitative analysis as well, e.g. frequency of certain variables studied, number of papers published each year, trends in methodology, etc.

Findings - Based on the papers selected for the literature review, opposing positions in M&A research were found. While some papers recommend early integration of the target company, other research findings favor late integration. Also conclusions on cultural effects are manifold: First, the question whether national culture, organizational culture or even lower levels of culture play a role seems unclear. Second, cultural diversity is seen by some scholars as a barrier to M&A success, whereas those who follow a resource-based view, argue in favor of cultural differences. Finally, performance as a variable was mainly applied to quantitative studies. However, its operationalization is different among studies and mainly refers to financial performance.

These opposing positions are mainly due to different definitions of culture, integration and performance and, to some extent, bias in methods. On the one hand, qualitative studies either used one case or investigated in many cases with view interviews. This seems not in line with leading literature in qualitative studies that highlights theoretical sampling at different levels (selection of cases, selection of interview partners, etc.) as a crucial factor for valid findings. Quantitative studies, on the other hand, produced contradictory findings due to the numerous moderating and mediating effects that might have distorted results.

Originality/Value - This literature review clearly outlines four major recommendations for future research: First, it seems important to consider the different facets of culture, integration and performance. Defining clearly the variables under investigation seems necessary in order to clarify to which extent findings can be generalized. Second, use methods appropriately. A crucial factor is the way methods are implemented to answer research questions. Especially findings from qualitative studies are strongly limited to only one case or replicate the perception of a certain group involved in such an operation. Third, consider both sides of the deal. Many studies focused on the acquirer only and excluded the role of the target organization and its members. Fourth, the paper closes with a call for research on management practices. The author suggests that culture and integration may not be the main source of failing M&As, but the way culture and integration are managed.

Keywords: Mergers, acquisitions, culture, integration, performance

RESTRUCTURATION AND ITS IMPACTS ON PSYCHOLOGICAL AND NARCISSISTIC CONTRACTS

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More than ever during the reorganizations we can hear the following remarks: "this person is having difficulties", "this person is in difficulty". The same words are taken up by the executives themselves: "I am having difficulties.

The objective of this communication is to improve the understanding to these remarks. The definition of the manager in difficulty is the following he (she) is a person does not succeed to fulfill his (her) responsibilities according his (her) hierarchy's expectation or his(her) other prescribers' ones. The consequences of these difficulties are multiple. The costs are more or less hidden : the decrease of effectiveness and performance of the managers, the destabilization of the surrounding people. But there are also social costs which are difficult to measure.

This communication proposes to identify

- The nature of these difficulties: techniques, relational, personal or managerial;
- The origin of these difficulties;
- the circumstances and contexts which generates these difficulties
- if it is possible to detect these difficulties as soon as possible?
- Is it possible to settle "tools" in order to anticipate and to prevent the risk?
- How the company can to do with the managers in difficulty : training, coaching, assessments, professional mobility, dismissals, etc?

Methodology - We carried out 15 interviews in depths with managers in various companies, of different sizes, in various sectors.

We made the analysis of the contents according to the methods recommended by Luce Bardin (Bardin, 1977).

The question of the executives in difficulty is with the striping crossing of questions milked with the individual and questions having milked to the organization. The difficulties are linked to the individual (competences, its personality, behaviors) and to the organization (requirements, its expectation, strategies, management...).

In fact the manager is bound to the company with contract. So we will mobilize the theory of the psychological contract (Rousseau, 1995, 2001) as well as the theory of the narcissistic contract (Kaës, 2009) to explain certain aspects of the situations of managers in difficulty. The hypothesis is that there are breaches in the psychological contract where there is restructuration. These breaches have consequences on narcissistic contract.

The mobilization of the concepts of Psychological Contract to analyze these situations triple interest presents.

- First of all it makes it possible to apprehend the situation of the manager in a global way; the difficulties of the executives as integrated in a disturbance of the relation of employment.
- The second interest is in the particular context of the executives' employment. Indeed, the roles of the executives are characterized by a prevalence of tacit obligations and the importance of political and relational dimensions. The use of the psychological contract enables us to apprehend these "tacit" dimensions sources of ambiguities, conflicts and difficulties. This

concept is adapted to the analysis of the difficulties being able to occur in the relation of use of the executives, because it puts forward socio-cognitive and emotional dimensions of the existing tacit bond between employer and employee.

- Lastly, the third interest lies in the fact that the psychological contract is the subject of a processual modeling within an organizational context, which will enable us to be based on this modeling to analyze and propose methods of management of the situations of managers in difficulty.

The concept of contract narcissistic borrowed from the psychoanalysis facilitates the understanding of the unconscious dimensions of representations, illusions, fantasies, identifications. It gives us a deeper knowledge of ambivalent and conflictual attachment to the company.

CSR STRATEGY: A TOOL TO ENHANCE THE REPUTATION OF INSTITUTIONS OF TERTIARY EDUCATION

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Every corporation strives to enhance its reputation and brand image by adopting a societal approach to all its stakeholders. In the recent years many companies choose to invest on strategies of CSR as an expression of their Societal Marketing Orientation. CSR is the concept whereby businesses integrate social and environmental concerns in their corporate operations and in their interaction with their stakeholders on a voluntary basis. As each profit making company builds a successful brand image in the community, the CSR approach allows it to give back to the community and the environment by taking the responsibility of preserving the rights of all its stakeholders, our environment and our planet. "It has become a band of critics and an image to produce a license to operate for business that has a proper CSR program". (Lodge, Wilson 2006). Good CSR efforts can help improve brand positioning and brand name as a company increases their care for the environment and community. CSR efforts can help transform businesses and develop their corporate citizenship, as a tool for development and competitive economic advantage by facilitating and developing these efforts in the world. (Carter. C. 2007)

According to the European Competitiveness Report 2008 of the EC indicates that the stakeholders are the major criteria to ensure good CSR efforts. Ongoing support for the CSR approach from the non market stakeholders, for example, allows better and more effective results. 'Effective CSR requires dialogue and partnership with stakeholders such as trade unions, public authorities, non-governmental organisations and business representative organisations.' (EC website 2009)

The CSR approach is also an opportunity for tertiary education to implement and take responsibility to influence and set an example to their students, employees, community and government bodies. Various objectives were identified from the research to establish and increase CSR awareness, CSR advantages and efforts and increase brand positioning and image for tertiary education.

In this research paper the researchers aimed to identify the market opportunities for the University of Nicosia, in order to enhance its brand image as a Responsible Organization in the Cyprus and the International Market of Private Institutions of Tertiary Education.

The research was divided in three phases and it combined a variety of research methods in order to help the researchers to collect valid and reliable data. The first phase of the research was a survey with a sample of 506 Cypriot Citizens who were asked to express their expectations from an Institution of Tertiary Education in Cyprus in terms of Social Activities. The respondents were positive for the advantages the CSR efforts could bring to both the community and environment and the majority of them agreed that CSR behaviour and philosophy to care for our plant and community is important and needs the collaboration of the educators to help persuade and influence our world. They have also listed areas/ social problems in which they expect the Institutions of Tertiary Education in Cyprus to become actively involved.

The second phase of the research was a survey among a sample group of 60 persons who interact with the University of Nicosia (students, faculty and staff) who agreed on the need of an Institution of Tertiary Education to adopt a dynamic CSR strategy. Furthermore a 86.7% of responders agreed

that a successful CSR strategy will increase awareness and 81.6% also agreed that CSR could increase brand positioning and image for the University of Nicosia.

The third phase of the research used the focus group approach. A focus group was formed with the participation of the Campus director and members of the administration and the student affairs of the University of Nicosia. They all agreed on the need, the Institutions of the Tertiary Education to get more involved in the environmental and other social problems named by the participants of the first and the second phase of this research process. The members of the focus group emphasised the need for the University of Nicosia to increase CSR awareness by taking the responsibility to show the community how important is to recycle and preserve the environment and to save energy by adopting "solar energy" technology. On a social aspect the members of the focus group agreed to undertake "smoke free" campaigns since lung cancer is the number one reason for mortality among young adults. The intention of the focus group to examine other measures and campaigns related to other social problems of our community was also expressed.

The main conclusions from the research highlight the need for Institutions of Tertiary Education to adopt a comprehensive CSR campaign which will enhance their brand image and reputation, contributing to the minimization of social and environmental problems- a role that is expected from ITE's as the research indicated.

Key words: Corporate Social Responsibility (CSR), Institutions of Tertiary Education (ITEs), brand image and reputation.

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ALLIANCE DECISION-MAKING OF SME: PHASES AND INFLUENCE FACTORS

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Managing alliances is no more difficult than deciding to enter into such a cooperative relationship. Many researchers, particularly in the advanced countries have studied strategic alliances with special emphasis on large enterprises and focused as a way of internationalization but there is still a gap of references to understand how this decision is taken from the point of view of SME: what makes SME to be engaged in alliances?, which factors are playing an important role into this decision?.

The innovation of this research is to provide a framework of alliance decision-making process based on five phases as well as the identification of key factors that make SME to be engaged on alliances. The proposal is based on the incorporation of different perspectives from the social capital, mainly social exchange, and economic development into the alliances decision making particularly in SME. This research could be especially attractive to the different actors involved with SMEs in order to focus their effort on those phases or factors that are weak and that may be potentially developed in a new way of joint working.

The empirical data comes from a sample of 130 small and medium enterprises in Mexico that is a good example to find not only enterprises with structural and cultural limitations that are obstacles to decide to be engagement but it is also possible to find successful experiences of inter-organizations. These two paradoxes provide relevant data to try to answer the question of this study. 11 variables are measured through two questionnaires (one for enterprises with alliances experiences and one for enterprises without alliances experiences), using a liker type ordinal scale of 3 and 5 options. The answers of this questionnaire are being collected through personal and phone interviews.

The preliminary results show significant difference between these two groups that provide a lot of potential to develop alliances strategies among SMEs. The perception of the enterprise competence phase and the alliances proposal phase are critical phases into the alliance decision-making process. Although most of the entrepreneurs desire to be involved in alliance, the lack of possession of information about alliances issues as well as the lack of trust is key factors that are limiting this decision.

Key Words: Alliances, decision-making, phases, influence factors.

JEL Classification: D01

CASE STUDY: INTERNAL FACTORS IN THE PLANT AND THE KIBBUTZ HELPING PLANTS TO INTEGRATE IN THE GLOBAL ECONOMY

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General background - In Israel, there are some 250 kibbutzim. Kibbutz members comprise 1.7% of the population of Israel. The kibbutz is a collective society, whose core values are: cooperation and equality. The guiding principles of kibbutz organization and management are:

1. Joint ownership of production and consumption assets.
2. General and mutual help.
3. Democratic management, decision-making by vote of all the kibbutz members, each member having one vote regardless of their role in the system and their seniority as a member of the kibbutz.

In the past, the kibbutzim supported themselves through agriculture, and in the 1960s they underwent a process of industrialization. Today there are around 300 industrial plants on kibbutzim.

In 2007 income from industry represented 67% of the income of the kibbutzim, and income from agriculture was 15%. According to the breakdown of income from kibbutz industry in 2007, 45% of the plants are in the field of plastics, 17% are in the food and beverages branch, and 12% are metal and machinery-based.

Economic characteristics of kibbutz industry in 2007:

Total sales NIS 36,854,000

Export and overseas activities NIS 18,568,000

Total employees 45,970

These figures indicate that the kibbutz industry is export-oriented, and many of its plants have found the way to growth by joining the global economy.

The position of kibbutz industry in the Israeli industrial sector (2007 data): 7.8% of total sales in the sector, 9.4% of the total workforce, 10.2% of total exports. Kibbutz industries as a group contribute more to the Israeli economy than the proportion of kibbutz members relative to the country's population.

<i>2007 sales in NIS m</i>	<i>No. plants</i>
<i>Over 250</i>	<i>25</i>
<i>100 - 205</i>	<i>50</i>
<i>50 - 100</i>	<i>54</i>
<i>30 - 50</i>	<i>43</i>
<i>Up to 30</i>	<i>93</i>

Breakdown of sales by size of plant (2007)

More than half the sales from kibbutz industry come from the 25 largest plants. This figure indicates a process of polarization in the kibbutz industry, with the largest plants growing at a faster rate than

the medium and small plants. The big plants are becoming bigger, and the small ones are becoming smaller.

Characteristics of the kibbutz plant - The kibbutz plant is a combination of cooperative and family firm. When factories were first established on the kibbutzim, only the kibbutz members worked there, and, as in a cooperative, they were also the plant owners. The members of the kibbutz, like the family of the owner of the firm, had the right to manage and work in the plant. The growth of the plants necessitated the intake of a workforce beyond that which the kibbutz could provide, and the industrial plants were forced to employ people who were not kibbutz members. Over the years, the second and third generation of the kibbutz became members and joined the plants as laborers and managers. The kibbutzim and their plants are managed today by second and third generation kibbutz members and non-member salaried employees.

The core values of the kibbutz society, cooperation and equality, had an impact on the management culture of the plants, especially in their early years. In the 1960s and 70s, when the kibbutzim were undergoing massive industrialization, the socio-technical approach was adopted by the kibbutz industrial plants.

As noted, the kibbutz industries are managed today by second and third generation members of the kibbutz. The critical element in the success of a business firm is the quality of its human capital, the quality of its managers. If there are no suitable managers among the kibbutz members, managers are hired from outside the kibbutz. However, those who decide who will be hired as managers are the kibbutz members, and so it is their skill and ability to choose the right manager that influences the quality of the managers who are hired. Hence the quality of management of a kibbutz plant is always affected by the management ability of the kibbutz members.

Research question - What are the internal factors in the kibbutz and the plant that help the plant cope successfully with the global economy?

Method - From the data regarding kibbutz industry, it appears that in the past decade there has been a process of polarization, in which the big plants have shown greater growth. It can be assumed that internal factors in the plant and the kibbutz have affected the plant management in responding differently to changes in the environment.

In order to learn what factors affect the response of the management of the kibbutz and the plant owned by the kibbutz to changes in the business environment, three cases were examined, three industrial plants owned by kibbutzim whose financial situation is strong. The plants were from the three main branches of kibbutz industry: plastics, food and machinery,

The three plants have been in existence for around 50 years, and until around a decade ago the income and profits of the three plants grew steadily. In the past decade, one plant has stopped growing, another grows some of the time, and the third has continued to grow consistently. The business environment is similar in all cases, a high level of competition and exposure to imports; the results of the way the plants have dealt with this environment are different.

The research examined factors such as organizational culture, management style, adherence to the core values of the kibbutz, personal motives and attitudes of the kibbutz members, the percentage of plant workers out of the total kibbutz workforce, reciprocal relations between the plant and the kibbutz and so on.

The research was carried out using quantitative and qualitative methods.

The presentation at the conference will include details regarding the internal factors in the plant and the kibbutz relating to the quality of management of the plant.

DEVELOPMENT OF SYSTEM THINKING IN THE CONTEXT OF BUSINESS EDUCATION

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This paper deals with a development of system thinking of students who study Industrial Engineering and Management according to new curriculum. Project Based Learning (PBL) becomes an integral part of the new curriculum. During two semesters, the students conduct a project in a business organization where each project is related to a different aspect the business environment. The students should demonstrate the appropriate use of critical thinking, written and communication skills, decision-making skills, and problem solving skills needed for the high quality of their project. The participants of this research included 42 college students and 111 high school students, all of them took part in a team project in the area of industrial engineering and management. One of the research tools was a questionnaire for assessing students' tendency for system thinking. The original questionnaire was developed by Frank (2007) and was upgraded for the current research. To successfully integrate different issues into an integrated project, the student needs a system view or, in other words, a high capacity for engineering system thinking (CEST). CEST is a combination of knowledge, professional skills, and behavioral competencies. The main characteristic of CEST is the ability to see the "whole picture" and all relevant aspects without getting stuck on details (Frank, 2007).

The upgraded questionnaire was repeatedly used to track the development of the students system thinking. First, we ran the questionnaire in the beginning of the process while the students had to find a suitable organization for performing their projects. Finally, we ran the questionnaire in the end of the academic year, after the students submitted their final reports. The tool's reliability test was measured by calculating the Alpha coefficient (The result was 0.706). In addition, three types of validity were investigated - content validity, contrasted group validity and construct validity.

In the statistical analysis of the respondent's replies to the above questionnaire, a significant difference was found between the score received at the beginning of the final project's work process, and that which was received at the end of the process, after the final project had been completed ($p < 0.01$).

According to the division of four components which defined CEST (cognitive characteristics, abilities, personal traits, knowledge) we used the paired t test in order to compare those components before and after the final project had been completed. We found a significant difference between the pre mark and the post mark in these components: cognitive characteristics, personal traits and knowledge. There was no evidence of a significant difference between the component of abilities in the two points of time ($p = 0.743$).

These findings emphasize the notion that CEST may be improved and acquired through learning. The only component that may not be improved is the student's abilities of CEST. This component includes analyzing the needs, requirements and preferences of the customers, and conceptualizing benefits against costs considerations. We will discuss the difference between this component to the others components of CEST, regarding the research's results.

In this research we used a confirmatory factor analysis, regression analysis and general structural equation model with latent variables. The model that we present is a confirmatory factor model for data of the 153 students' scores. Using Analysis of Moment Structures (AMOS software) we implemented the general approach of data analysis known as Structural Equation Modeling (SEM).

The study findings allow us to conclude that the final project contributed to the development of system thinking among learners. Perhaps this is evidence that supports the notion that system thinking may be improved and acquired through learning. This conclusion should be verified and validated by additional future studies.

And finally, both industrial engineering curriculum and business administration programs curriculum combine different complementary learning experiences.

The graduate in both areas must understand different issues from various disciplines (such as finance, marketing, leadership, negotiation, operations, strategy, and more) and has to combine them together. He doesn't have to understand all the internal processes in the organization. The main advantage of the graduate in both areas is the ability to integrate all the system's parts.

A practicable contribution of this research can be the planning of an effective outline for business administration curriculum so that the graduate will acquire system thinking skills and integrated understanding of contents and processes.

Keywords – Capacity for Engineering System Thinking (CEST), Project based Learning (PBL).

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A CROSS CULTURAL COMPARATIVE STUDY ON VENDOR CHARACTERISTICS, SUBJECTIVE NORMS AND ONLINE TRUST

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Purpose: The purpose of this study is to examine the moderator effect of culture on the relationship between vendor characteristics, subjective norms and online trust.

Design/Methodology: Student sample was used in the study. A total of 596 students from various Bschoools in India, Canada and USA participated in the study. Moderator regression analysis has been used in the study for testing the moderator effects of cultural variables.

Findings: Our results indicate that vendor reputa and communication with vendor positively affect trust. Internal norms also have a positive effect on online trust. External norms have a negative effect on trust. Uncertainty avoidance positively moderates the relation between internal norms and trust. Power distance negatively moderates the relation between external norm and trust and also between communication and trust. However, there were no moderator effects of collectivism on the relation between internal norm and trust.

Research Implications: The results have several interesting managerial implications. First it shows that customers who are high on uncertainty avoidance would prefer to trust vendors with a lot of reputa. Customers who are low on power distance give more importance to communication to build trust. Further, it was found that external norms may have negative impact on trust and the customers who are high on power distance gave less importance to external norms to build trust. Thus celebrity endorsement and use of other mass media need not necessarily generate online trust. Online stores should build reputa, provide more efficient communication, and use the positive word-of-mouth of its existing customers for building trust.

Limitations: The students were used in the sample to get sample equivalence and also because students belong to younger age groups who are heavy users of online shopping. However, other segments were not considered.

Originality: Findings from the study indicates that culture moderates at the individual level and country should not be used as a surrogate for culture. The study differs from the previous works as it uses individuals' cultural values and tests its moderator effect on the relationship between vendor characteristics and trust and also between subjective norms and trust.

Keywords: Vendor Characteristics, Subjective Norms, Online Trust, Moderator, Culture.

THE IMPORTANCE OF ACCOUNTING INFORMATION ON STRATEGY MAKING FORMULATION OF SMEs IN GREECE

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The purpose of this study is to examine the role of accounting information in the strategy formulation process of small and medium size enterprises (SMEs) in Greece. The study will analyse how owner managers of SMEs utilize the information they receive from internal and external sources for strategic purposes. The study is motivated by the dearth of literature on how SMEs make strategic decisions and the role that accounting information plays in this. The thesis will examine whether integrating accounting information into the formulation of strategy leads to greater financial success.

SMEs play a crucial role in the economic development of a country. SMEs contribute to outputs and employment and can also affect the competitive ability of the large organizations (Husband and Mandal, 1999). SMEs influence the competitiveness of large organizations by providing high quality inputs (Van der Weile and Brown, 1998). According to Ghobadian and Gallear, (1996) SMEs are the "life-blood" of modern economies. The importance of SMEs for future economic development has also been reflected in a number of policy papers which have focused attention on the role of entrepreneurship, owner-managers and the small firm sector (Deakins et al., 2002). Examples include EU policy on sustainability and the Competitiveness White Paper (DTI, 1998).

Despite this fact, most empirical studies in the area of strategy formulation have been focused on large organizations. Only a few researchers have addressed the strategy-making process of SME's (O'Regan and Ghobadian, 2000) or the importance of information in strategy development and implementation (Bhimani and Langfield-Smith, 2007). There is little empirical research that has sought to critically evaluate the strategic decision process and how this impacts on the performance of SMEs (French et al., 2004).

Prior research on the relationship between strategy and firm performance has produced mixed results. There is therefore no conclusive evidence on the effect that a particular strategy orientation has on firm performance. This study argues that the failure of prior studies to include accounting information in their analysis might have contributed to these mixed results. The present study contributes to our understanding of the relationship between strategy and firm performance by exploring the role of accounting information in the strategy decision process. In particular, it examines whether firms perform better by integrating accounting information into their strategy formulation process. The study will address two main research questions: (i) To what extent do Greek SMEs use the accounting information available to them when formulating their strategy, and (ii) what is the impact of strategy and accounting information on the performance of the SMEs? To accomplish the aims of the study several issues will be examined including the process of strategy making in the Greek SMEs, factors influencing strategy formulation, and the role of accounting information in the strategy process. In terms of the role of accounting information, the study will investigate what are essential accounting and financial information that owner managers of SMEs seek to receive and what accounting and financial information are being used for strategy formulation.

The thesis adopts a contingency model that posits that financial performance will depend on the fit between strategy formulation with the use of accounting information and the contingent factors of organizational size, managerial characteristics, technology employed, financial and human resources available and the external environment.

In order to achieve the study's aim, this study adopts a triangulation research as the methodological approach. Using a mixed approach to research will permit a wider and richer understanding of strategy formulation practices than a singular methodologically approach. Specifically the research design of the study will consist of two main research stages. The first stage, that has already been conducted, is an exploratory pilot study and consists of the analysis of interviews to prepare the questionnaire. The second stage is the explanatory study and consists of conducting the large scale survey and testing the study hypotheses.

The research approach used at the first stage can be characterized as qualitative. This is due to (1) the limited literature investigating the strategy formulation in SMEs in Greece and (2) the fact that some research objectives and questions that are stated above are on an exploratory basis. The research approach that will be used in the second stage can be characterized as quantitative. The specific design of this stage can be identified as cross-sectional. The specific method of data collection will be questionnaires that will be sent via mail to the SMEs. The rationale for choosing this method of data collection is that it can be used to generate quantitative data on a large number of companies who are known to be representative of a wider population in order to test theories or hypotheses.

Preliminary results from the pilot study confirm that the process of strategy formulation in Greek SMEs is an emergent procedure and individualistic in nature. Results also reveal that organizational size, technology, the external environment and the owner manager characteristics are important variables in understanding the relationship between strategy formulation and financial performance. In addition, it appears that owner-managers use accounting information when making strategic decisions and the most reliable source are the accountants they employ. The preliminary findings will be used as a basis for the development of the main instrument of the study.

This study will make several contributions to theory and practice. For example, it will fill a gap in the literature on the importance of accounting information in the process of strategy formulation of SMEs. In addition, the study will provide owner managers and policy makers with a better understanding of how to improve the performance of their businesses.

Keywords- Strategy Formulation, Accounting Information, Small and Medium Enterprises, Financial Performance

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BOARD ATTRIBUTES AND ORGANISATIONAL DEMOGRAPHY- EVIDENCE FROM COMPANIES LISTED IN THE ATHENS STOCK EXCHANGE

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Purpose of the study - Due to the recent scandals on the headquarters of the world's leading organizations, corporate governance (CG) practices and board of directors' functions have attracted considerable attention. A range of CG guidelines have been developed, aiming to enhance investors' confidence and reduce the risk of collapse (Demirag and Solomon, 2003). Although a plethora of studies have already assessed the association between board attributes, board performance and organizational performance (Payne et al., 2009; Nicholson and Kiel, 2007), a limited amount of studies have focused on the association between board attributes (Ruigrok et al., 2007) and organizational demographics. The present study attempts to fill this gap by collecting data from 293 companies listed in the Athens Stock Exchange (ATHEX) for the year 2008.

Literature Review - Board Characteristics - Board Size: Larger organisations have more complex structures and managerial processes (Godfrey, Merrill and Hansen, 2009); thus we theorise that there is a necessity for a bigger board size that allows monitoring and servicing the organisation more efficiently.

External Independent Directors: Agency theorists believe that the presence of external directors can minimise agency cost. A remarkable number of studies argue that the presence of non-executives protect shareholders' interests (Hillman and Dalziel, 2003; Pearce and Zhara, 1992). Larger organisations involve greater number of stakeholders than smaller ones (Rindova, Pollock, and Hayward 2006). This may result to the need of more external directors, so as to protect the interests of those stakeholders.

Board Committees: OECD (1999) recommends that companies should establish internal control committees, so that to protect shareholders' interests and to engage efficient internal control systems. Larger organizations are more complex to be monitored and controlled than their smaller counterparts (Godfrey et al., 2009), and thus may have a greatest necessity for the presence of established board committees (Ruigrok et al., 2006).

Organizational Demographics - Type of Industry - Different industries need to adopt dissimilar organizational strategies and corporate governance approaches depending on their competitive environments (Pearce and Zahra 1992; Kang et al., 2007). Due to that, they may develop board attributes that fit best to their strategies and respective environments.

Organizational Size: Agency theorists argue that larger firms require a greater number of directors to monitor the management of the organization (Kiel and Nicholson, 2005; Hillman and Dalziel, 2003). Similarly, "Resource dependency" theory suggests that large organizations need more directors to attract valuable and diverse resources (Allen, 1974; Dooley, 1969). Large organisations involve greater

number of stakeholders than smaller ones (Rindova, Pollock, and Hayward 2006). This may result to the need of more external directors that will protect the interests of those stakeholders.

Organizational Age: Institutional theory of action implies that as an organisation ages, reliance on rules increases (Zhou, 1993). The reason of this phenomenon is the increased pressures for “internal consistency” and managerial stability (Aldrich, 1972). Therefore, we may assume that boards in older organisations employ greater proportion of external and independent directors that will be responsible for the consistent internal function and protection of shareholders’ interests.

Methodology - The current study consists of all Greek companies found listed in the Athens Stock Exchange (ATHEX) on 31st December 2008. Secondary data of 293 companies were collected from December 2008 to January 2009, while the main sources of data collection were the ATHEX website (www.athex.gr) and the companies’ Annual Reports. T-test and One Way ANOVA were used to examine any significant differences in the means of the four dependent variables (board size, number of internal/external directors, independent members), based on the groups formed for each independent variable (Industry Classification, Organisational Age, Organisational Size and Years listed in the ATHEX) and grouped as explained in the relevant variables in the methodology.

Findings - T-test was employed and significance of difference was found between the two industries in the means of board size and the means of external and independent directors, while the means internal board members did not show any significant difference.

Analysis of Variance technique shows that larger organizations tend to have bigger boards and greater proportions of external internal and independent directors. This may be explained by the fact that large organizations require large number of directors.

Furthermore, older organizations have larger boards, more external directors and a higher mean of independent members. Companies that are listed in the ATHEX for longer period of time seem to have larger boards and greater proportion of external members. This may be explained by the fact that the longer an organization is listed, the higher it appears to rely with the CG rules and procedures.

Originality - This paper extends our understanding regarding corporate governance practices in Greece and focuses on the association between board attributes and organizational demographics.

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References can be provided upon request.

**THE FORMS OF POWER IN THE COMPANY AND THE HEALTH OF THE EMPLOYEES :
CROSSED INFLUENCE OF THE MANAGEMENT AND THE GENDER**

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Purpose - The presence of participative practices in the company and the opening of the board in the labor-management dialog generate a climate at work having an impact on the health of the workers ? Do these effects vary according to the gender ?

Design/methodology/approach - Two samples of companies opposing by their management (in total 128 companies and over 30 000 employees) are compared. The criterion of effective governance has been preferred to the legal status of the company (capitalist / cooperative). Occupational physicians of these companies have been interviewed through a questionnaire. The medical statistics of the employees were also analyzed.

Findings - An authoritarian management of human resources and a bad social climate have effectively an impact on the health of the workers, particularly in the register of the pathologies with anxio-depressive constituent. But the impact is also very sensitive about the accident, which suggests two kinds of explanatory tracks: sociological and psychological. The question of the gratitude(recognition) - to literally and figuratively - is once more central. The gender distinction is very significant. Women shows an highest level in health spending, but men are four times more sensitive than women in relation to the type of power exercised on them.

Research limitations/implications - The study covers 16 sectors of industrial activity. The identification of companies per pairs similar but enough contrasted by the nature of their management is a challenge.

Practical Implications - The socioeconomic translation of the sanitary overconsumption resulting from an environment which privileges the authority rather than the animation in the management is not negligible in public spending. The rate of absenteeism in the company is concerned.

Originality/value - We know through many studies on stress, including the contributions of Karasek and Desjourns that climate relationship in the company, the degree of autonomy and recognition to the employee are majors psychosocial determinants of health at work. For its part, this paper show that such effects may find an upstream explanation nature of collective and not individual, at the level of the institutional logics.

CUSTOMER RELATIONSHIPS IN HIGHER EDUCATION: A CONCEPTUAL FRAMEWORK

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Purpose - Academic interest and research on exchange relationships dates back to the 1970s. Nevertheless, research pertaining to student-university relationships is scarce. Such an omission, however, may seem surprising given the assertions of an array of academics, such as Berry (1983) and Gronroos (2000), who suggest that services are inherently relational.

Specifically, education is a service which necessitates the personal involvement of the student, and according to Pressey and Mathews (2000) this enhances relationship development. Moreover, a substantial investment is required on behalf of the student in terms of time, effort and financial resources as well as substantial adaptation of his/her behaviour and lifestyle, increasing even further the relevance of exchange relationships in the education industry. In addition, education is continuous in nature but normally for a specific duration. That is, even though the ongoing nature of education makes it conducive to relationship development (cf. Berry, 1983; Lovelock et al, 1999), the delivery of the service would normally not last for a lifetime, but instead for a limited time period.

In fact, a number of benefits may accrue from a potential student-university relationship for both parties of the dyad. In particular, students benefit from an enhanced service delivery process and as such, an improved outcome, i.e. more knowledge and capabilities which can result in better job opportunities, earning prospects and contribution to society (cf. Melanthiou, 2009). On the university side, relationship benefits pertain to improved levels of service quality, increased student retention and loyalty, positive word-of-mouth and reputation enhancement (Reichheld and Sasser, 1990; Buttle, 1996; Seeman and O'Hara, 2006; Helaesen and Nettet, 2007). Consequently, investigating student-university relationships seems particularly intriguing.

To reiterate, however, little work has been undertaken which investigates the relevance, applicability and implementation of student-university relationships. This lack of research may be partly accounted for by the lack of consensus as to whether students can truly be considered as customers. In fact, the student-as-customer concept has attracted the interest of various academics, but perspectives have polarised (cf. Eagle and Brennan, 2007; Svensson and Wood, 2007).

Consequently, in view of the above, this paper discusses the relevance of the relationship concept in the higher education industry and proposes a conceptual framework which maps the development of student-university relationships, from an input-output perspective. In so doing, it utilises concepts from relational theories but, in line with Eagle and Brennan's (2007) suggestion, it is acknowledged that higher education is largely a private good and this essentially "makes the student the customer in the higher education process" (p. 48).

Findings - The conceptual framework models the wider environment within which the student-university relationship develops, maps the dual effect of the interacting parties and presents the relationship dimensions which influence the success or failure of the relationship (cf. Anderson and Narus, 1984; Wilson and Moller, 1991; Morgan and Hunt, 1994). To this end, it is recognised that student-university relationships develop through multiple service encounters at different levels with different service personnel.

In particular, the conceptual framework views student-university relationships to unfold within a wider environment (cf. Hakansson, 1982), which includes such aspects as culture, the legal and regulatory framework, the economic environment, and the technological environment (cf. Ioannou

and Zolkiewski, 2007) and affects relationship development. Further, the significant effect of each of the parties on the interaction pattern and the resulting student- university relationship is modelled, by incorporating their profiles.

Finally, the relationship variables which influence the dyad in pursuing and maintaining the relationship are presented. These are conceptualised to include the courses offered, comparison level of alternatives, communication, consultation/advising, fairness, service quality, satisfaction, bonds as well as trust and commitment (Anderson and Narus, 1984; Dwyer et al, 1987; Ioannou, 2009; Morgan and Hunt, 1994; Parasuraman et al, 1988).

Keywords: Customer relationships, services, higher education

Classification: Conceptual paper

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THE ECONOMIC EFFECTS OF A SINGLE NATIONALITY ON A NICHE TOURISM DESTINATION: THE BRITS WEEK IN LAAX

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Purpose: This paper explores the perceived economic expenditure that a single nationality makes at an Alpine niche tourist destination (Hudson 2008, Hall 2005). A number of strategies are used to promote new forms of income during a tourism shoulder period. One such strategy is encouraging a destination to attract a single nationality for a niche event (Hudson 2008, Novelli, 2007). This is the case of Laax, Switzerland. The destination has developed a niche tourism image, with supporting niche products (Novelli 2007). Laax focuses upon the sport of snowboarding and encourages specialised events connected with this image (Getz 2007). This paper explores the perceived expenditure (of British snowboarders and freestyle skiers) during a one week stay. Primary data was collected on perceived expenditure and also peripheral variables; such as marketing of the Brits Week and antecedents of the participants (Hudson 2008). Two companies organise and manage the event, Souls Sports and Weisse Arena; both companies were extremely interested in the expenditure profiles and other consumer information (Getz 2007) relating to the British tourist.

Design/methodology/approach: A mixed methods approach was taken to collect data on a qualitative and quantitative basis. The intention was to complement the perceived expenditure of the British tourists with the qualitative perceptions of tourism actors in the surrounding environs of Laax. The study collected 204 self completion questionnaires from British tourist that attended this event. In addition, some 9 qualitative interviews with relevant tourist actors from the surrounding locality were undertaken. The data were explored and analysed using descriptive statistics linked to non parametric statistical tests. The main focus of this paper is upon quantitative data.

Findings: Most participants at the event plan to come well in advance (sometimes up to a year). Awareness of the event is dominated by 'word of mouth' information (Hudson 2008), which given that this event is part of the British Ski Events calendar, is not surprising; this 'week' is the culmination of the whole season's events.

It is evident that the Brits Week in Laax provides an important economic boost at a shoulder period in the year. The economic spend is an estimate, but its range may well be in the region of £600,000 to £1,000,000 for some 800 to 1000 tourists. It was noted that perceptions of economic spend differed when individual spending categories were compared to total spend.

Furthermore, the economic spend on primary items, tended to mirror the profile of a normal tourist, with accommodation and transport consisting of the largest expenditure segments (Hall 2005). Secondary spend, too, was predictable, with ski lifts and food being the largest categories.

The antecedents (Getz 2007) of the participants in Laax were clearly linked to snowboarding and its depiction. In essence most visitors at the event were young, between 16-35, with a bias towards males. Given the risky image of snowboarding and freestyle skiing, one may have conceptualised this (Getz 2007, Hudson 2008, Wheaton 2004).

In addition, the expenditure profile of this week is similar to that of an annual holiday. In fact the estimate spend is higher than the visitors' annual holiday spend.

Finally, the economic spend at Laax has little leakage; facilities used by the Brits are nearly wholly owned by Wiese Arena. Consequently, the majority of the expenditure is derived from the

accommodation, lift operations and retail outlets, located around the Ski Area of Laax. Little, if any, money circulates to the village as a whole.

Practical implications: This study provides a new perspective on expenditure by a single nationality at a niche event. The research was primarily designed as an applied venture to assist in understanding expenditure and consumer behaviour of a particular nationality at a niche tourism destination. Before being able to actually engage in the research, it was necessary to gain the consent of both companies who were involved in hosting the Brits Week. Both companies were anxious to ascertain what the perceived expenditure was for the week, where the economic spend was being made, together with understanding antecedent factors of the attendees.

Originality/value:

Research paper:

Keywords: Tourism Expenditure, Events, Niche Tourism, Mixed Methods

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CONCEPT OF BUSINESS PERFORMANCE MANAGEMENT (BPM)

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Abstract: The article is the authors' view and attempt to consolidate general vision (including development of BPM Architecture Chart) of new managerial concept BPM (Business Performance Management) and analysis of how it can allow to integrate all managerial systems and tools, used in a company, to focus internal operational business processes on achieving strategic goals and targets. All managerial systems used in any corporation (Strategic management, Value based management, Risk management, ERP etc.) usually are focused on some specific areas and ignore some processes which are apart of those systems control, but make rather significant impact on results. So it's very important to have some approach or tool which can integrate all systems which are used in managerial process and account any interinfluence between them in focusing the whole scope of activity on achieving strategic goals. Implementing BPM allows to solve this task with maximum efficiency.

Key words: Business Performance Management (BPM), Integration, Efficiency, Strategy, Enterprise Resource Planning systems (ERP), Information system.

Creation of Enterprise Resource Planning systems (ERP) in the middle of the 1980-s became an apogee of the human desire to know and understand the processes ongoing in the organization. These systems were based on planning of necessary material (Manufacturing Resource Planning (MRP)) and manufacturing resources (Manufacturing Resource Planning (MRP II)), management of customer relations (Customer Relations Management (CRM)) and supply chains (Supply Chain Management (SCM)). On the one hand, this helped to put all processes in the company in order, bring them to the single reference point, but, on the other hand, such systems often proved to be not only user-unfriendly but also inefficient because of their complexity. In addition, they allow managing the company on a day-to-day level only, while the tactical and strategic levels were not covered by ERP systems. Therefore, there was an evident need for an integrated management system that could offer concrete solutions for business performance improvement.

Separate solutions that allowed covering all three levels of management (i.e. operational, tactical and strategic) existed but were used by companies separately from each other. Attempts to consolidate them by IDC analytical company specializing in computer market monitoring led to the emergence of a new term - BPM (Business Performance Management).

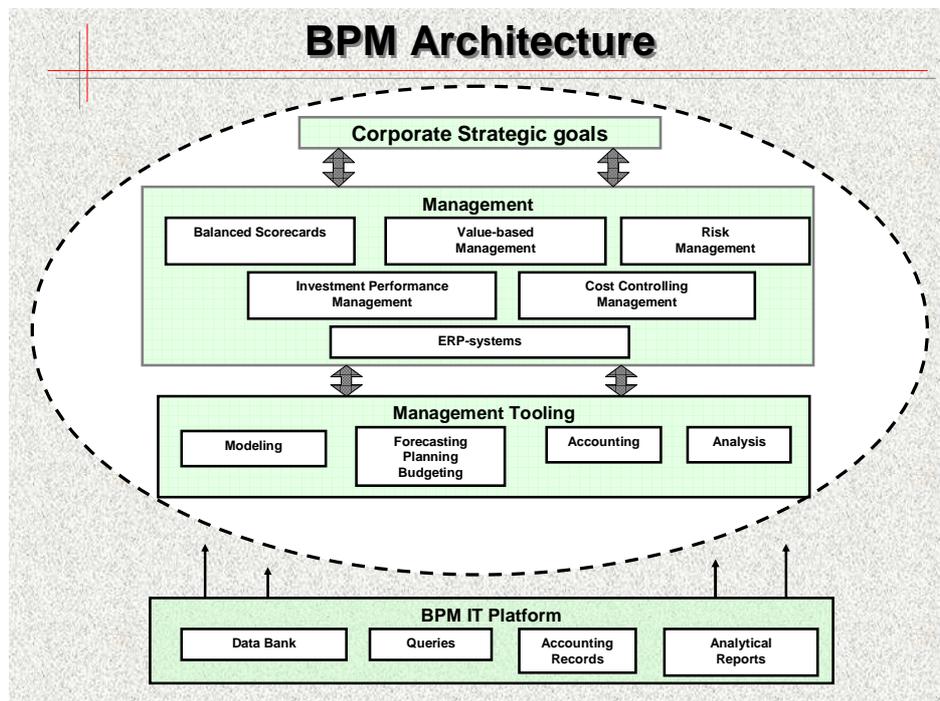
Along with BPM, other abbreviations can be found in the literature, such as CPM (Corporate Performance Management), EPM (Enterprise Performance Management), etc. It is interesting to note that the above-mentioned term, CPM, was concurrently formulated by Gartner Group. This gives another evidence of the logic development of management systems which reached its culmination in BPM concept being a universal system applicable to any company.

The BPM management system is a new integrated method that allows aiming all business processes existing in the Company at achievement of strategic goals and timely making of effective decisions. The following features make this system unique:

- it makes achievement of the strategic goal a priority of decision-making at all levels of management;
- it takes into account not only internal factors that determine activities of the company but also external environment that is often beyond the control of the company and, as a rule, is not accounted for by conventional management systems;

- it is not a new methodology to manage development of the company, instead it integrates and structures logically all management systems applied in the company.

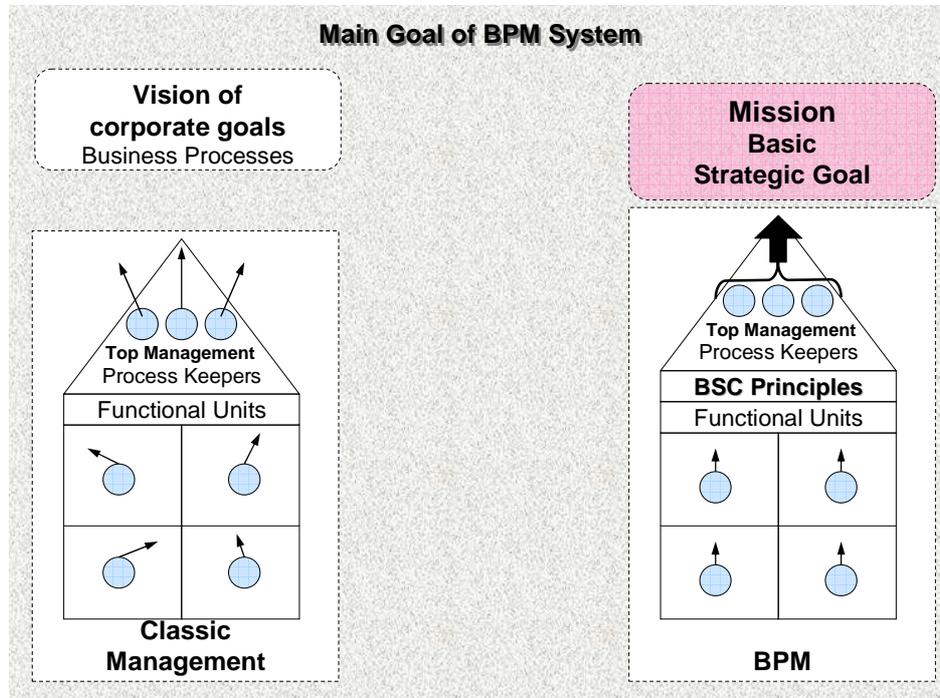
Today the majority of companies use sophisticated management systems in their activities, such as purpose-oriented management, budgeting, different forms of reporting and analytical tools. The concept of the BPM system does not contradict them but regards them from its point of view as components that should be properly connected instead of being operated separately. However, it is very seldom that BPM systems are fully implemented. And the main reason for that is primarily the fact that the concept itself is very young. On the figure below is placed the architecture of BPM.



Goals, objectives and solutions of the concept. In a practical sense, term "BPM concept" has two meanings:

1. As a management concept – a certain approach to making and implementation of managerial decisions;
2. As an information system – a complex of software supporting the BPM ideology and enabling its practical implementation.

But in the first place BPM is a management concept and only after that an information system that supports the management process. Its main advantage is its universality. It is provided by the application of the integrated approach of the system to activities of the company. This is expressed in the ability of the system to provide for implementation of all processes and solutions to arising problems from the point of view of the strategy implementation, by using existing means, methods and systems of management.



Focus of the company on the strategy implementation. Sometimes in the course of operations the strategic goal can recede into the background in light of continuously arising problems. This leads to a situation when at the level of a business unit, subsidiary or even a corporate center day-to-day managerial decisions are aimed not at the gradual achievement of the pre-set strategic goal, but elimination of daily problems. In this case the BPM system constantly “reminds” managers at all levels of the main objective of the company by focusing their attention on the strategy of the company and fulfillment of the strategic Key Performance Indicators (KPI). To achieve this, priorities of development should be identified for each business unit from the point of view of the company as a whole. Being an integral method, the BPM concept suggests using existing systems that perform the functions of purpose-oriented management. One of the most famous of them is Balanced Scorecard created by R. Kaplan and D. Norton. The essence of the system lies in setting KPI for each business unit and building a balanced system for the company aimed at achievement of strategic goals. It also makes sense to have the policy of personnel incentives based on the created system of balanced of indicators and analysis of KPI fulfillment. Thus, with implementation of this system, the company can arrange work of all business units by setting achievement of strategic goals as common priorities in all areas of activities, both production and sales, as well as for development of the in-house growth of technology and qualification potential. At the same time, this system allows to link compensation of personnel to business performance (see the Figure above). Therefore, local goals of business units are linked to the high-level goals of the company, i.e. day-to-day activities match the strategy.

Improving interaction between business units. The system allows building relations between business units in such a way that prevents the situation when one business unit achieves its goals and, in particular, fulfills its individual KPI, at the expense of another business unit. This can happen independently from personnel of the business unit. The proposed regulation of interaction is called the method of *collaborative management*. It makes collaborating with colleagues not only profitable but also effective for the company as a whole.

Distribution of responsibility for decision making. In order to focus the attention of personnel on operational and quality management, BPM offers improvement of the process of managerial decision-making through distribution of the levels of management, i.e. delegation of authority and enhancing the responsibility of an employee of the previous level, which allows to avoid excessive bureaucracy and stimulate employees' initiative. This approach is very appropriate to the modern Russian reality because even in the leading Russian companies bureaucracy exists as a legacy of the centralized planning system significantly preventing efficient managerial decision making, which slows down performance improvement and adds to lost profits of companies.

Modeling at the corporate level. To support innovations, effective use of available resources and opportunities, the concept provides for the application of "what if" situation analysis not only at the level of business units but primarily at the corporate level. It is assumed that various business units take part in such modeling effort. Their interaction is based on the above-mentioned collaborative management.

Budgeting. Budgeting is one of the most universal tools of the management system and, in particular, strategic planning. The BPM system allows using the budget process to support implementation of strategic decisions on a day-to-day basis.

Information. Being a management system of higher level, BPM uses ERP systems as its basic elements. The issues of effective use of resources are always of great importance. Besides, it is not only about material resources, but also about information, in particular. Availability of quality operational information is a key to having a successful business, therefore, BPM provides for documenting, cataloguing, storing and analysis of informational resources.

Today this management concept is not only "in vogue". It significantly helps in managing large companies having multidivisional structure. Firstly, BPM builds relations between all levels of management providing for implementation of the strategy and directing all its components to achievement of strategic goals. In practice this means that every day, performing their standards job duties employees contribute to the fulfillment of long-term plans. Secondly, the concept structures business units/subsidiaries and their functions in a logical and understandable manner. It becomes clear what and how each business unit/subsidiary is doing and how it affects the performance of the company as a whole, which allows to optimize management costs as much as possible, reduce the probability of the overlapping of functions between divisions and provides for their well-coordinated team work.

Therefore, the BPM system that has at its command various interrelated tools of management provides for the timely, flexible and comprehensive performance management of any business.

ASSESSING E-GOVERNMENT DEVELOPMENTS IN CYPRUS

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Purpose - This paper reports on e-government developments in Cyprus and the assessment frameworks used to evaluate the progress. The paper examines to what extent the UN evaluation framework (e-government readiness index) and the EU benchmarking mechanisms reflect improvements regarding e-government initiatives in Cyprus. Also it addresses whether the issue of e-participation that becomes central in the latest strategic plans on e-government is reflected in the assessment process.

Design/methodology/approach - Secondary data have been collected through literature review. The two primary frameworks for evaluation of e-government initiatives are analyzed. A comparison of published results on Cyprus e-government initiatives is performed and an improvement is outlined.

Findings - E-government initiatives face unique challenges with respect to efficient and effective implementations, primarily related to e-participation services that require increased interaction with the public. It has been observed that there is a misalignment between the new e-government services, which in principle aim to promote e-participation and a number of implementation problems. In order to clarify this, it was deemed important to take a more detailed look into the assessment mechanisms that track down improvements related to e-government. For the purposes of this study, the case study of e-government improvements in Cyprus has been examined. From an administrative point of view, Cyprus is divided into six districts: Lefkosia (capital), Ammochostos, Larnaka, Lemesos, Keryneia and Pafos. Each district is headed by the District Officer who is essentially the local representative of the central government. The District Officer acts as the chief coordinator and liaison officer for the activities of all Ministries. The administrative power in Cyprus is a two-tier system, but the structure is rather centralized, delegating limited power to the local authorities. There are two types of local authorities: Municipalities and Community Councils. Municipalities have more financial capabilities power and more population than the Community Councils which are also stipulated by the Cyprus Municipalities Law. Cyprus consists of thirty-three Municipalities and 486 Community Boards of which nine Municipalities and 131 Communities are in the Turkey occupied north part. Community Councils in Cyprus govern 31% of the inhabitants (Ministry of Finance, 2002) and 85% of the territory of Cyprus. Some works, especially development works, are carried out with substantial contribution by the Government. Cyprus e-government initiatives has been following steady improvements over the last few years. In a series of studies conducted by the United Nations, regarding e-government readiness index, Cyprus has been steadily improving both its readiness index and its global rating; In 2003 Cyprus e-government readiness index was found to be 0.474, while in global rating Cyprus was in the 51st position. In 2004, Cyprus readiness index was found to be 0.519 and Cyprus was placed in the 49th position in a global rating, that is, it has moved up two places ahead from its global ranking in 2003. In 2005, Cyprus e-government readiness index has increased to 0.5872 and was ranked 37th, that is, 12 points ahead the previous year ranking. This was due primarily to the addition of a new Cyprus Ministry of Health site (<http://www.moh.gov.cy>). In 2008, Cyprus e-government readiness index is 0.6019 and Cyprus was ranked 35th. This is attributed to the launch of a one-stop e-government portal. These improvements are also consistent with the benchmarking index used in EU. However, as it is outlined in this report, an area that is of prime

importance to strategic aims of e-government, that is e-participation, is not reflected in existing assessment mechanisms. A proposal on evaluating e-participation is presented.

Practical implications - The proposed paper demonstrates strengths and weaknesses of existing evaluating frameworks for e-government initiatives. More specifically, the paper identifies that the UN evaluation framework (e-government readiness index) and the EU benchmarking mechanisms reflect improvements regarding e-government initiatives in Cyprus but they both fail to detect the level of e-participation. A preliminary framework for assessing e-participation is proposed.

Originality/value - The paper identifies a lack in existing evaluation systems for e-government and describes a preliminary attempt to address it.

Keywords: e-government, e-participation, Cyprus, UN e-government readiness index, EU evaluation index.

AIMING HIGH? THE CAREER TRAJECTORIES OF BRITISH-EDUCATED GREEK BUSINESS GRADUATES

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One of the most debated issues within the European labour markets, especially during the last decade, has been the value of higher education (CIPD, 2006, Kyriakidou, 2006; Holden and Harte, 2004). To promote UK Higher Education to overseas students, the British government has established the Prime minister's Initiative for International Education (PMI2), a 5 years' strategy aiming to attract an additional 100,000 overseas students to study in the UK (<http://www.britishcouncil.org/eumd-pmi2.htm>, accessed in 12/01/2009). That translates into about 10 to 15 per cent of all students coming from overseas. One of the main European student cohorts studying in the UK are Greeks and Cypriots (Eurydice, 2008, 2000). The aim of this project to explore the career trajectories of Greek business students following their graduation from British Higher Education Institutions. Of particular importance in Greece, is the weak links between educational institutions and organisations operating in the economic field. This phenomenon is attributed to the gap between the increasing number of people entering higher education and the limited demand in the domestic economy for highly educated personnel.

In the light of the above, this study investigates the extent to which graduates' career expectations, decisions and outcomes are shaped by specific educational institutions and courses, the national environment, structures and culture (Kyriakidou, 2005; Kyriakidou and Zhang, 2005). The contribution of my project is to explore the linkages between higher education and employment and therefore, investigate the *actual* value of British academic studies within the Greek labour market.

A unique aspect of the study lays in its attempt to directly examine graduates' perceptions of their studies and graduate career trajectories through countries specific cases (UK and Greece). Its empirical base draws from a graduate questionnaire survey, and semi-structured interviews with graduates, course directors, HE careers advisers, and recruitment consultants.

The study undertakes a multi-level analysis in order to assess the subtle interactions between higher education structure and policies, organisations' recruitment strategies, and the country's culture and tradition. In this regard, the study highlights the importance of socio-economic influences on students' degree choice and their career activities after graduation. Main findings focus on factors impacting on the initial degree decisions and students' aspirations; the impact of British education on the career trajectories of Greek business graduates and the barriers, perceived or real, to graduates entering employment and receiving promotion in terms of different national labour markets for graduates, the increasingly diverse recruitment base and career opportunities to different range of business professions and roles. In general terms key findings revealed the difficulties respondent graduates have experienced in finding desirable jobs. It could be argued that, in many respects, the Greek labour market structure is relatively uncondusive (and perhaps non-responsive) to graduate employment. There are still weak links between academic establishments and the operation of the labour market in Greece, as most small and family-owned Greek businesses are unable to absorb the increasing number of graduates. Evidence from this study, also showed that there are doubts about whether the skills graduates acquired on HE programmes are those that employers required or were prepared to pay for. Overall, the main issue that emerged from our findings was that, graduates'

employment opportunities did not only depend on the nature of their degree studies per se, but also on the extent to which the Greek labour market was able to absorb them.

This study challenges the assumptions, so dominant in the European educational policy discourse, concerning the supposed merits of expanding higher education.

Keywords: Greece, Graduates, Higher Education, Career Trajectories, Employability

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**ACCOUNTING FOR HERITAGE ASSETS: FINDING A NEW RESOURCE FOR
DEVELOPMENT. THE ITALIAN PERSPECTIVE**

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Purpose: After a brief examination of the main management issues of the assets in the public sector, this paper aims to investigate the problems of recognition, valuation and disclosure of Heritage Assets (as a fundamental part of the global Capital assets of the public entities) in the Italian context, highlighting the criteria defined by the Italian legislator for local authorities.

Methodology: An exploratory case study is carried out in order to highlight the peculiarities of the problem related to the adoption of particular procedure for the accounting treatment of heritage assets. In particular, this work intends to analyze the accounting procedures adopted by the main Italian municipalities that held the most part of heritage assets of the world: Rome and Florence.

Findings: Based on the reading and analysis of financial statements and other relevant documents, the analysis of these two case studies (Rome and Florence) is carried out in order to define (in a first step) the current situation of the accounting treatment of heritage assets in Italy.

Originality/value: The analysis of the accounting problems encountered by these two municipalities represents a starting point for future investigations regarding the accounting treatment of heritage assets in the Italian context. It represents also a useful investigation for future comparisons at international level.

Keywords: heritage assets, public sector accounting, recognition, valuation, disclosure.

Classification: Case study

EXAMINING THE IMPACT OF MENTORING AND LEADER-MEMBER EXCHANGE IN ORGANISATIONS

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Purpose of this paper: The purpose of this study was to examine the relationship and to test the interaction effects of mentoring (psychosocial and career) and four dimensions of Leader-Member Exchange (LMX) (affect, contribution, professional respect, and loyalty) on organizational commitment.

Design/methodology/approach: Three broadly hypothesized relationships were tested in a field study among auditors serving in audit firms across Malaysia who were registered with the Malaysian Institute of Accountant (MIA). Out of 1100 questionnaires posted out to MIA's firms located in the state of Penang, Selangor, and Wilayah Persekutuan, 318 completed questionnaires were returned of which only 266 were usable (24.2% return rate). The unit of analysis was the individual auditors and participation was voluntary.

Findings: By and large, the results from hierarchical regression provided moderate support for the hypotheses. Auditors regardless of their sex experienced higher organizational commitment with the presence of mentoring and LMX. The findings on direct effects revealed that predictor variables have a positive relationship with affective-normative commitment and only partial support for continuance commitment. Psychosocial of mentoring, reciprocity and contribution of LMX were found to be positively related to affective-normative commitment. Continuance commitment was significantly predicted by contribution of LMX. The results provided partial support for the interaction effects of affective-normative and continuance commitment. One implication of the study's findings is that human resources department has to take a serious view of mentoring and LMX when implementing human resource policies in order to encourage employees to manifest high levels of commitment.

Research limitations/implications (if applicable): One limitation was the size of the sample due to resources constraints. Although the sample size was relatively small compared to the population, the model has a good fit. Future research can include; other indicators to organizational commitment like organizational justice and moderating variables like gender. The inclusion of these factors or variables may change the R square and how independent factors can impact organizational commitment.

What is original/value of paper: The paper empirically measured the impact of Mentoring and LMX on organizational commitment. Practitioners may find this paper useful as supervision, coaching and mentoring can be empirically substantiated using a series of statistical techniques.

Keywords: Mentoring, Leader-Member Exchange (LMX), Organizational Commitment, hierarchical Regression, Malaysia.

Paper Type: Empirical Study.

THE TERROR EFFECT ON TEL AVIV STOCK MARKET

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Since the beginning of this decade, Israel had suffered from terror attacks. These attacks had many kinds: bombs in busses, terrorist suicide, car inferno and ect.

Although studies investigating the impact of terrorism on economic activity are relatively new, they are quickly gaining popularity following the events of September 11, 2001.²⁸⁹ The research estimating the impact of terror on the economy is in its first stages. There are a few works about terror but it primarily focuses on the impact of terror and tourism (Enders and Sandler,1991; Downes-Le Guin and Hoffman, 1993; Sloboda, 2003; Ito and Lee, 2005). Frey, Luechinger and Stutzer (2004) claim that terrorism's impact on various aspects of the economy including tourism, FDI, savings and consumption, investment, stock markets, foreign trade, urban economy and national income and growth. Blomberg, Hess and Orphanides (2004) and Abadie and Gardeazabal (2003) discovered that terrorist attack in a country reduces its GDP growth. A study by the World Bank (2002) on the Palestinian-Israeli conflict estimates that its cost on the Israeli economy is about 4 percent of GDP. Furthermore, Gupta, Clements, Bhattacharya and Chakravarti (2004) find that terrorism has a significant positive effect on the government budget this additional fiscal cost effect GDP growth. Tavares (2003) terrorism study found to have a negative and significant impact on growth in real GDP per capita. However, when taking into account other determinants of growth, such as exports, size of government, and spending on education, terrorism is no longer significant. There are also some studies that claim that terror has a small direct cost on capital stock in the U.S (Navarro and Spencer, 2001). Nitsch and Schumacher (2004) find that a 100 percent increase in the number of terrorist incidents is found to reduce bilateral trade by about 4 percent.

Even on Israeli terrorism there are just a few articles from the economic perspective and even they deal mostly with the local effect and not with a bilateral affect (Eldor and Melnick 2004; Levy and Galili, 2006). Fleischer and Buccola (2002) found that the Israeli hotel industry was negatively impacted by terrorism between 1992 and 1998 because revenues from foreign visitors dropped. The net loss increased with the deterioration of the situation in 1996. Drakos and Kutan (2003) used monthly data from 1991 to 2000 to investigate the effect of terrorism on tourism in Greece, Israel and Turkey. They found significant negative effects. Fielding (2003) focused on the impact of terror on aggregate savings in Israel. He calculated terror by the number of deaths in Israel during 1989-1999. He estimates that if the number of fatalities in Israel decreased by its average level, consumption would fall by over 7%. The savings ratio in Israel would double if a complete cessation of violence occurs. Eckstein and Tsiddon (2004) using VAR methodology estimate with quarterly data for the Israeli economy from 1950-2003, that there is a significant effect of terrorism on consumption. Berrebi and Klor (2005) find that terrorism has no significant impact on the average stock-market valuation of

²⁸⁹ See Barth et.al. (2006) for a literature review.

Israeli firms. This is due to a positive effect on defense stocks that offsets a negative effect on non-defense stocks.

Terrorism affects FDI flows because foreigners can choose among many countries and projects, some of which are not subject to terrorism. Enders and Sander (1996) research on Spain find that terrorism has been estimated to have reduced annual FDI inflow by 13.5% on average for the period 1975-1991. They also estimated that terror in Greece reduced FDI on average by 11.9% annually. This translates into a loss in FDI amounting to almost \$400 million. Because FDI is an important source of savings, investment and economic growth are negatively affected in countries on the receiving end of terror. Moreover, the transfer of technological know-how into the country is reduced. Abadie and Gardeazabal (2005) examine the impact of terrorism on FDI which, they hypothesize, may be greater than its impact on economic growth. In most cases their 'terrorism index' is found to be negatively related to net FDI. Moreover, a one standard deviation increases in terrorism leads – on average – to a decrease in the ratio of net FDI to GDP of between 4.16 and 6.54 percentage points. Investigating the effects of terror on economic variables is clearly an important issue of research that more studies and resources have to be devoted to (Brück and Wickström, 2004).

In this paper, we collected 308 data of terror attacks since September 2000 until January 2006 (151 of them in the green line) and we use event study methodology (Campbell et al. (1997)) to find whether the terror attack influence the stock market in Tel-Aviv. When we analysis all of the 151 terror attacks, it seems that they has weak influence on investor behavior at Tel-Aviv stock exchange.

There are a few characterize of the Israeli economy and stock exchange that should minimize the impact of terror on the markets. First we suggest that the influence fade out along the years since the investors get used to the terror attacks in Israel. Second, the Israeli industry is biased and based on exports. Due to this fact terror should have even a lower effect then expected when you invest in an open small economy like Israel. Global effects should have a bigger effect.

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PROCESS LED TRANSFORMATION – A PRACTICAL FRAMEWORK AND CASE STUDY IN THE FINANCIAL SERVICES SECTOR

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Purpose - The presentation will share a pragmatic methodology used to drive effective enterprise wide process change in complex service businesses. This approach, which we call the Process Management Framework (PMF), has been applied in the Financial Services Sector and the case study of a Mid Sized European Bank will be shared to provide clear and tangible illustration of its usage.

The primary objectives behind the PMF initiative are to:

- significantly impact the customer experience to deliver on a Customer Brand Promise – addressing customer issues and irritants directly;
- concurrently, optimize internal operational efficiencies to drive substantial cost reduction;
- actively address enterprise and operational risk and audit considerations.

The PMF process seeks to transform all aspects of service delivery with primary focus on effective operational processes and supporting technology. It also seeks to embed optimal people practices and effective structures so as to maximise performance.

Design / Methodology / Approach - This methodology enables organizations to fully reap the benefits of process change through implementation by ensuring full organizational alignment across the core business disciplines. In addition, through effectively embedding metrics directly into the operational processes, these processes can be effectively monitored and managed throughout their lifecycle.

Findings - This approach and methodology has been applied extensively at a Mid Sized European Retail Bank across multiple business lines and process areas including Cards, Investments and Payments.

In all of these areas, significant changes to both process and technology were required and this process ensures that technology is effectively deployed and that processes are first optimized prior to their automation. This is a critical step since experience indicates that often this is not the case.

Through the use of this methodology the bank is in the process of completely transforming these business areas and reaping material business benefits through these changes. In particular, despite significant capital investments required for technology changes, the bank will reap material savings relative to the status quo while, concurrently, significantly improving its customer service delivery.

Originality / value - While the core PMF builds upon process re-engineering methodologies, the approach encompasses unique innovations that have made it exceptionally effective. These include:

An “End-to-End, Outside In” View of Process that starts with the customer and ends with the customer – with the customer touch-points, internal operations and back office processes being the engine to deliver differentiated products and services to the customer efficiently and effectively. This requires a horizontal view of processes as seen through the customers’ eyes. Cross-functional working teams spanning all areas that touch the process are fully empowered to work together to improve the overall process.

A Methodology that Integrates Across Multiple Disciplines - the PMF process spans three business disciplines, specifically, customer service delivery, internal operations and risk management. Each constitutes an expert area that traditionally operates independently and views the business through a unique lens. The PMF effectively balances the tensions, issues and opportunities that each of these lenses needs to legitimately address. Representatives from these disciplines actively co-create the 'Options' and develop the final 'Recommendations'.



The engagement of a “Challenger Team” to explicitly Challenge the Status Quo – a team of senior thought leaders with a horizontal orientation whose role is to test the conclusions of the working teams and truly break the paradigm, often challenging issues that have remained unresolved for years. The challengers add robustness, open up the options and break the mould in terms of assumptions and expectations. These are not process experts and are not from the process area being addressed – rather, they have a sound understanding of the way the bank actually works and the issues faced across multiple facets of the business.

An Emphasis on Creating Options – Traditional process re-engineering methodologies focus on two stages – i) mapping AS IS processes and ii) designing the TO BE world. The PMF approach is unique in that it adds an explicit phase that requires the teams to broadly explore all Options before landing on recommendations. These Options are reviewed by the Challengers - invariably, the breakthrough ideas that create large scale impact are generated in this stage and are often the overlay of the options generated by the working teams.

Keywords Process, Framework, Transformation, Enterprise Risk Management, Customer Experience, Operational Efficiency, Banking

THE CONTRIBUTION OF EXPERIMENTAL LABORATORIES TO THE ECONOMIC GROWTH**Matricano, Diego¹**¹*Second University of Naples, ITALY*

The issue of new venture creation has always attracted considerable attention by scholars even if there is still so much to inquire. This study starts from Curley and Formica's proposal [2008] to implement experimental laboratories (exp labs, from now on) which are business simulators in which skilled partners test high-expectations business ideas proposed by would-be entrepreneurs. The main purposes of this paper consist of determining if exp labs are really able to influence high expectations start-ups (technology-based and aiming to grow significantly) and, soon afterwards, of inquiring about the way it could happen.

Because of several changes happened in economic, social and political field, the process, through which would-be entrepreneurs try to introduce innovation into the market, has totally changed. It was based on the "technology – business – funding" paradigm and now it seems to be based on a new one characterized by four phases: technology/idea – idea test – simplest solution – marketing/sales [Matricano, 2009]. Exp labs, born with the main purpose of reducing risk and uncertainty in the new economic environment, seem to drive economic growth because of the way they work.

Would-be entrepreneurs, in fact, before launching high expectations start-ups could decide to test their business ideas in exp labs. They are a sort a cross boundaries network since they involve several partners like universities, research centers, governments, non-governmental organizations, capitalists, fund-raisers, suppliers, customers, experienced-entrepreneurs, of exploiting their different backgrounds and of making tested business ideas more fitting to the market [Matricano, 2009]. The main contribution to the launching of new start-ups is due to the partners' previous experiences and it has two main consequences.

The first is strictly depending on the way exp labs work. In fact, all the partners involved in the process help to test business ideas by bringing their experience in the simulation. It causes a range of new possibilities which can be redefined, up to several times, and eventually launched into the market. Each partner contributes to improve the business idea by adding something new, not evaluated until that moment and going across knowledge boundaries. The continuous exchange between partners in the network increases creativity. The business idea becomes more fitting to consumers' needs and, at the same time, its implementation is much easier. The second consequence is connected to the first one. Innovation and greater creativity, in fact, encourages high-expectation start-ups and constitutes the premise for launching them as international or for making them grow internationally. Exp labs can create the right conditions to make high-expectations ventures evolve into global businesses, which is entrepreneurship without borders [Formica, 2005]. The right conditions derive from the fact that partners have different backgrounds in reference to both their work experiences and their origins (countries). It increases the possibility that a new business idea can be exploited in as many countries as possible. The most important aspect to think of is that the new business idea does not need to be changed to meet consumers' needs, according to the "glocal theory", because it is supposed to be thought and tested according to many different perspectives.

In conclusion, this paper introduces and emphasizes the relevance and importance of high expectation entrepreneurship as a driver of economic growth which depends on three factors: innovation, creativity and international environment.

The contribution given to economic research deals with the different goals would-be entrepreneurs aim to pursue for their ventures. According to Sorrentino [2003], in fact, learning, survival and consolidation coexist although the predominance of one of them. When talking about high-expectations start-ups, the three different aims seem to describe the whole creation process starting from innovation (based on learning), passing through the redefinition of the business idea (necessary to improve the level of fitness with market needs or, at a wider extent, to survive) and ending with the consolidation (the achievement of important results through internationalization).

Key-words

Experimental laboratories; Economic growth; High-expectations start-ups; Knowledge network

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THE GREEK BANKING SYSTEM AND SOCIAL PROSPERITY

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The transition from the drachma to the euro has been a gradual process, and is not even yet entirely complete. The Greek banks have retained several particularities from the old regime that they exploit in the new era, guided primarily by their own corporate interests. The Greek state's control mechanisms are weak, thanks to high levels of corruption. Greek banks have happily slashed their deposit rates to Eurozone levels, but have not adjusted their lending rates, which remain high.

This paper attempts to determine whether and to what extent the Greek banks have helped the country's social development in the past ten years. It presents tables charting the differences between lending and deposit rates, rates of household borrowing and seizures of customer assets, as well as related court decisions imposing penalties on banks. It shows that the top priority of the Greek banks is their own short-term profit, and that the result has been to drive Greek society deep into debt rather than to foster long-term prosperity.

Keywords: banking system, social prosperity, Greece

THE SYNERGIES OF DIVERSITY WITHIN THE HOTEL INDUSTRY: THE IMPACT AND VIEWS OF HOSPITALITY STAKEHOLDERS

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Purpose – The purpose of this paper is to explore the perceptions of hospitality industry stakeholders regarding diversity management initiatives and policies adopted by many hotel organisations and investigate their role and within the discourse of diversity.

Design/methodology/approach – This paper focuses on workforce diversity and stakeholder involvement investigated by both management theorists and hospitality researchers.

Findings – Taken together, the paper reveals the perceptions and main concerns of hospitality stakeholders regarding the business case of diversity despite the little research into how key stakeholders such as trade unions and government agencies have responded to diversity management initiatives and policies. In conclusion, the discussion around diversity and the debate around its benefits has urged many stakeholders to further examine the discourse of diversity in order to achieve their own goals and objectives.

Practical implications – This paper suggests the importance of cooperation among stakeholders to create the synergies and ideal conditions for diversity to flourish.

Originality/value – This study identifies the uniqueness of cultural diversity and demonstrates new insights in regards to the stakeholders cooperation and the concept of diversity.

Article Type: Conceptual Paper

Keywords: Cultural Diversity, Hotel Industry, Stakeholders, Trade Unions, Equal Opportunities

A STUDY OF JOB SATISFACTION OF EMPLOYEES IN THE RESTAURANT INDUSTRY: THE CASE STUDY OF CYPRUS

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Purpose - The objective of this study is to examine the levels of job satisfaction of employees in the restaurant industry in Cyprus.

Design/methodology/approach - To identify the levels of job satisfaction, questionnaires were formulated and distributed to 130 randomly selected restaurant employees of purposely selected restaurants in Nicosia, Cyprus. Participation in the study was on a voluntary basis, responses to the questionnaires were anonymous and the participants were assured about the strict confidential treatment of their responses. There was a 73% response rate, in total 95 questionnaires were returned completed.

Job satisfaction was investigated in ten key areas namely: Salaries and Benefits, Performance Appraisal system, Job Security, Work Recognition, Social Satisfaction, Job Advancement, Working Conditions, Internal Service, Internal Communication and Work Allocation and Responsibilities.

The questionnaires consisted of 23 statements on a five point Likert Type scale, of an open ended question asking for remarks or comments, and of 5 statements based on demographical information. Statistical analysis was conducted using descriptive statistics with the SPSS program.

Findings - Literature indicates that job satisfaction, according to Kepler (1994), is the fulfilment and gratification that comes from work. Robbins (2003), referred to job satisfaction as an individual's general attitude toward his or her job. A person with a high level of job satisfaction holds positive attitudes about the job, while a person who is dissatisfied with his or her job holds negative attitudes about the job.

The importance of this study is for restaurant employers and employees to become aware of the current levels of job satisfaction experienced by their employees. As this research goes to show, many restaurant employees in Cyprus have rather low levels of job satisfaction. As seen by the ten factors investigated in the research, most of them fall under the fifty percent satisfactory level mark. The main reason for these relatively low levels of job satisfaction is due to a combination of factors that are discussed in the following paragraphs.

The study has shown that over a third, 36%, of the employees working in restaurants are not satisfied with their salaries. It is worth noting that 23% remained neutral. As far as benefits are concerned, 48% remained neutral, and only 10% appeared to be satisfied. This in turn has negative consequences for the restaurants concerned. It was found that many restaurants pay their employees relatively low wages.

Furthermore, low levels to no work recognition were reported, as 58% stated that they do not receive any praise or recognition for work done in the restaurant. This translates into frustration and lower morale amongst employees. Many employees feel that they never know their value to the restaurant, as they would never get any feedback on their performance.

Also, due to the lack of job advancement opportunities in the restaurants, 55% felt that there is no career prospects for them in their restaurants. They believe that there is no clear and specific career path for them to follow. It was also noted that 56% of employees believed that the performance appraisal schemes at their restaurants are not satisfactory. It was found that many restaurants do

very little or nothing with respect to performance appraisals, which in many instances, as reported by the employees, lowers employee morale and self-esteem.

Furthermore, 20% of the respondents reported not being satisfied with their place of employment and their job itself, and a high of 41% remained neutral. This was found to be mainly due to reasons such as stress (as 60% reported as being stressed out with their jobs), management (as 50% tend to disagree that management encourages suggestions and feedback towards the improvement of the restaurant), and 54% reported not being satisfied with the allocation of workload and responsibilities. Many felt that management has their favorites when it comes to work allocation and responsibilities. Although over half of the employees (56%) felt secure with their jobs, 21% reported that they did not feel secure with their jobs, while 23% reported neither comfortable nor uncomfortable with their job security. It was found that people working for franchised restaurants tend to feel more secure with their jobs than privately owned restaurants.

Of the participants, 60% reported that they enjoy a good working relationship with their peers and co-workers. It is evident more so with people working on the same level than with supervisors and managers. However, 40% appeared not to be satisfied with their working relationships. It has also come to light that 36% of employees felt that the training that they received is relevant to their present duties and responsibilities. 54% of employees tend neither to agree nor disagree with that statement while a minority group felt that the training that they received is firstly not entirely relevant to their present duties and responsibilities and secondly not sufficient enough.

Lastly, there appeared to be a communication problem in many restaurants. Employees are not finding out information that they need to know on a timely basis for them to do their job better. 23% of employees felt that there is not a satisfactory communication flow in the restaurant and that information is not brought to them in a timely and efficient manner, and 41% remained neutral.

Many studies suggest that by the year 2010, many people will have never cooked a meal from basic ingredients. Changes in demographics and lifestyles will combine to produce the greatest decade of growth the food service industry has ever known.

For this reason, it will be beneficial for all restaurant employers to take this issue of job satisfaction into consideration in order to be prepared and take full advantage of this growth the food industry is experiencing.

Research Limitations/implications - The topic of job satisfaction is one with many dimensions. Through this study, specific issues were addressed which could form the basis for further research in the restaurant industry in a country where the tourism industry is one of the main sources of income, but where similar research is scarce.

Originality/Value - The information gained from the study provides valuable and constructive insights into the factors contributing to employee satisfaction of individuals working in an industry where related research is sporadic.

Key Words: Job satisfaction, restaurant industry, Cyprus

**FINANCIAL STATEMENTS FOR GLOCAL COMPANIES? SOCIO-ECONOMIC AND
FINANCIAL COMMUNICATION ISSUES FOR FIRMS AND AGENCIES WITH A GLOBAL
VOCATION AND STRONG TIES WITH LOCAL CONTEXTS**

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In an economic scenario, current global competition classifies the actors involved in three main categories: 1. operators on an International scale; 2. local operators and 3. those who, although operating on a multinational scale, maintain significant ties with local contexts.

The latter category, firms that can be defined as “glocal enterprises” seem destined to characterize productive scenarios, above all because they succeed in mediating domestic needs by eliminating international trade barriers/ frontiers.

The aim of the study is to debate/discuss potential new demands in terms of communication and the compiling of financial statements, analysing the costs and benefits that could derive from methodologies of accounting systems best able to favour relations between competitors.

Following a brief but concise analysis of the relevant literature (both national and international) requirements are formulated deriving from the need to identify the predominant economic, financial and patrimonial elements distinguishing individual operators involved in international competitiveness, in order to evaluate standing and consequently, reliability. Primary sources of information are undoubtedly the “traditional” (i.e. patrimonial and income) systems of compiling financial statements/account rendering as are more recent systems characterized by a marked “ethic-social ethos”.

Both systems are easily identified in terms of typically global productive realities or on the contrary, local productive scenarios: the former reflecting the wide panorama of international accountancy principles rapidly becoming widespread and the significant practice/experience of “social statements” present in specific Nations, at time regulated by the legislation in force.

Small local firms, on the contrary, can still anchor themselves to domestic book-keeping/accounting traditions and to the standards of compiling social statements frequent in a national context.

Certainly the communication relative to “glocal” firms is more problematic, considering the foreseeable difficulty of mediating between inside information reserved for the public present in geographical contexts where the productive system is deep-rooted and information intended for international stakeholders.

Predictably, problematic issues emerge with respect to the potential connivance between often very different modalities of expression that often hinder interpretation, albeit in praiseworthy attempts to respond to different demands.

With reference to specific experiences drawing up statements, some critical reflections are moved concerning the hypotheses described above.

Some areas deserve special attention .

In particular, “the prism effect” of the financial statement. Can a single flow of accounting information in the meanwhile, satisfy the different requirements stakeholders express, above all, in different local and international contexts?

Furthermore, can it be assumed that the solution to this complex issue is to be found in the contribution each stakeholder can make to firm communication - becoming the "prosumer" – in other words, at one and the same time, actor-producer of the information and consumer?

And again: what must be the role of the public powers in this respect? Would it be preferable to have legally binding regulations even in a local context, imposed by supra-national legislative bodies, or alternatively, sufficient to rely prevalently on the impulse of professional organisms in the context of a fundamental regulatory framework?

The solutions to queries of this kind naturally could radically influence the schema, structure and content of economic-patrimonial, financial and social statements with predictably "revolutionary" effects in accountancy terms and on the interpretative skills of the public involved.

Public institutions are not strangers to such issues: ranging from State financial statements, to those of local institutions, all submerged in these broader contexts of operations requiring modalities of interlocution which are certainly different compared to those typical of a homogeneous economy circumscribed within a confined space.

Keywords: Glocal firms, Financial Statement, Socio-economic Communication.

BANK EFFICIENCY DURING CREDIT CRUNCH- EUROPEAN PERSPECTIVE

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Purpose - In the aftermath of the 2007/08 financial crises, the biggest financial crisis since the Great Depression, many questions have been raised for both market participants and policy makers. Firstly, what are the causes of this global financial crisis and what have been the consequences, both for the global economy and the financial system itself. Additionally, are there any antidotes that governments and other policy-makers can take, to reduce the costs of the current crisis, and most importantly how we can prevent its repetition?

The aims of the current paper are to firstly to examine the primal reasons of this global financial crisis. It is generally accepted that the reasoning behind the crisis is twofold, low interest rates that led in an abundance of liquidity and securitization which enabled banks to grow earnings while at the same time sparing on capital by gaming the Basel requirements. Securitization permitted banks to move assets off their balance sheets, freeing up capital and spreading the risk among many different players.

The current decade has been one with low interest rates on a global level, averaging in some cases the short term real interest rate zero. Those low rates have motivated the increases in financing and this in turn led to an increase in assets pricing, from real estate to stocks. During the same period stimulated by improved risk management techniques financial innovation led to an unexpected growth in the market for credit risk transfer instruments. With securitization banks extend loans and then allocate much of the underlying credit risk to end-investors. Further low interest rate generated the need for yield enhancement. For that reason, there was a demand for high yielding assets to place into the collateral pools in order to increase the profitability of securitization.

Eventually, the real estate market collapse, and the first consequence of this was the failure of a number of US mortgage lenders. This caused enormous losses in mortgage backed securities and many banks and investment firms began searching for liquidity. Furthermore, depressed housing prices caused additional problems as it made many homes worth much less than the mortgage value and some owners preferred to simply walk away instead of pay their mortgage. As a result, the asset-backed commercial paper market stopped in several countries. The rates at which banks would lend to each other in overnight and term money markets started to narrow. Lenders that had depended on short-term money markets or securitization therefore started to find it very difficult to get hold of funding. Ultimately, the banks in an attempt to preserve their regulatory capital ratios, banks cut off the flow of credit, causing a decline in lending to companies and consumers. Governments globally, in an attempt to avoid market failure and bank run bailout a number of banks.

Having establishing the reasoning behind the crisis, the second aim of the current paper is to compare the financial performance of a set of failing banks with a set of financially sound ones and try to evaluate the difference, if any.

Design / Methodology/ Approach - This is an empirical study aiming to examine the performance of a number of banks so as to identify any problematic areas in terms of risk and efficiency leading banks to fail. The attempt is to evaluate prior to fail financial position of banks and compare the result with those of sound banks. The data would be based on financial statements and share prices, where

available. The methodology is based on two different approaches. In the first approach we examine the X-efficiency of the banks in the sample by estimating an efficient frontier and by measuring the average differences between observed banks and banks at the frontier. Specifically, X-efficiency is defined as the effect of differences in managerial ability to maximise revenue or minimise cost, and accounts for differences in costs that cannot be explained by differences in scale or other observable characteristics (Leibenstein, 1966). A number of papers on bank performance follow these concepts (Berger and Humphrey (1997), Berger and Mester (1997), and Berger (2007)).

The second one is a nonstructural approach to bank performance measurement analysis achieved performance and is based on a set of financial ratios, e.g., return-on-asset, return-on-equity, or the ratio of fixed costs to total costs. The nonstructural approach then explores the relationship of performance to various bank and environmental characteristics, including the bank's overall strategy, corporate governance and control, location, and environment.

Findings - The study findings are expected to substantiate the credit crunch impact on both healthy and bailed out banks in terms of ex-ante and ex-post regulation. Moreover, the presented methodology can provide strong evidence of the differences in the financial and structural strength of this study's banks undergoing the recent financial crisis. Additionally, our research will provide key structural and nonstructural evidences that helps investors differentiate between bailed out and non-bailed out banks. Eventually, findings can provide policy makers with new areas of importance in terms of stability of financial institutions.

Research limitations/implications - The study's implications are significant for both academia and practice. In regards to the academia this paper addresses the issue of efficiency performance and financial distress of banking institution. The bulk of literature concentrated on the relationship between risk and bank failure. There is generally thought that there is a need for a larger time-span analysis period from the time the credit crunch started, yet the study wants to identify early stage signs of financial distress or strength/ potential recovery.

Practical implications - The question whether banks are efficient is of interest to managers and shareholders, as well as to customers and regulators. If these institutions become more efficient, then profitability will improve, greater amounts of intermediated funds will be available and better prices and service quality for consumers will be obtained. Thus, banks become more viable, therefore, the possibility of failure or being subject to take-over, decreases substantially. On the other hand, inefficient banks face the risk of default and that in turn generate the possibility of a bank run. Any early identification of efficiency impairment could help stakeholders fix the cause.

Originality/value - In the authors' best knowledge, there is no published research in the literature that addresses the specific subject matter. The study is original in the notion that aims to compare the performance of financially sound and bailing banks, in an attempt to identify key differences.

Paper classification: Research Paper

Keywords: Financial Crisis, Efficiency, Performance, Banking

BRANDING LOCAL HERITAGE-TRADITIONAL FOOD-AS A FORM OF SUSTAINABLE TOURISM- THE CASE STUDY OF CYPRUS

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Purpose- The objective of this paper is to examine how specialized industry agrotourism establishment managers/owners, Vakhis taverns managers/owners and Cyprus Tourism Organization officers interpret food culture and locality in branding traditional food utilizing the Vakhis (traditional food related) project of CTO.

Design/methodology/approach - The research method of a case study is chosen to allow for an in-depth comparison of macro (CTO) and micro decision makers. As to the research technique interview data will be collected from eight to ten agrotourism managers or owners, CTO officers and Vakhis registered taverns managers or owners. Semi structured interviews will be conducted during the period of May-June 2009. The research questions are as to what extent food culture is seen as an attractive way to interest the tourist consumer and to what extent branding food culture as local heritage can be regarded as a sustainable factor for the destination of Cyprus. The data will be analyzed applying content analysis.

Findings - Literature indicates that food products of a country can be among its most important cultural expressions (Handszuh, 2000; Bernard & Zaragoza, 1999). Cyprus as a Mediterranean country has always associated with the sunny weather and the lovely beaches as any other Mediterranean country. This strong but limited identity based on the 3S (Sun, Sea, Sand) that positioned the Cyprus tourism industry compared to traditional European destinations quite successfully for more than three decades might be regarded as a current weakness in the current saturation stage as it does not allow Cyprus to differentiate its tourism product. In the last decade the Cyprus Tourism Organization (CTO) established a theme-oriented marketing campaign related to Cyprus' traditional cuisine, a project named Vakhis leading to a CTO certified taverns. However, the "discussion of the trioka of tourism, food and identity is surprisingly limited in the extent to which food is used in destination and place promotion" (Hall and Mitchell 2000:34). This paper suggests the Branding of Local heritage as traditional food as a revitalizing solution to overcome the current maturity stage of the Cyprus tourism life cycle. The trend of the recent years shows that tourists prefer individually-planned holidays rather than package tours. People want to decide for themselves what to do and not to be limited to the plans made by the tour operators experiencing the authentic Cyprus, rather than the artificial mass tourist experience. Many tourists no longer seek just sunbathing and nightlife but are demanding complementary activities such as excursions, cultural visits and experiences. Despite the very scarce publication of food-tourism related texts in the last couple of years, few have weaved together the concepts of food, identity, sustainability and cultural heritage into any coherent and tangible structure (Gronau and Kaufmann, 2009). In this light, the paper interprets the level of success of the Vakhis project and the role of food culture in branding local heritage.

Research Limitation - The present study provides a starting-point for further research in the area of Branding Local Heritage as a form of Sustainable Tourism for Cyprus based on the existing literature and author's area expertise.

Originality/Value - The paper illustrates a bundling product of agrotourism and traditional local cuisine which can be a differentiating prospect for Cyprus differentiating from any other 3S destination..

Key words: Branding, local food culture, tourism, Cyprus

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TRANSFORMATION OF HOSPITALITY CURRICULA AND ITS IMPLICATIONS FOR FUTURE MANAGERS

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The objective of this paper is to address the current deficiencies of hospitality curricula and the implications to the Future Managers. Although the development of hospitality management education has been evolutionary the last decades (Morrison and O'Mahony, 2003) according to Lewis (2005) curricula are tailored to what the industry had needed in the past, not what it actually needs today, or what it may need in the future. Consequently, many educators are out of touch with the business world and unaware of its revolving needs. Based on the literature of the recent years, there is an agreement regarding the educational benefits of incorporating a more liberal approach into the hospitality curricula (for example, Airey and Tribe, 2000; Lam and Ziao, 2000; Tribe, 2000; Brotherton and Wood, 2000; Lashley, 2000; O'Mahony et al., 2001; Morrison and O'Mahony, 2002). Hence, an inconsistency gap exists between the practical application capabilities needs of hospitality managers and the knowledge provision by the hospitality curricula.

A capable manager in a broad sense is an executive who has a hands-on understanding of international business, an ability to work across cultural, organizational and functional boundaries. Unfortunately, however, many of the existing hospitality curricula have been designed by educators with few or limited exposure to the international market leading to programs with a 'local character'. Traditionally, hospitality education provides students with a good breadth of knowledge, which were based on "an amalgam of craft, ritual and inherited practices" (Lynch and Murray, 2009:56).

For many years, hospitality education has been criticised as not preparing graduates with all of the skills required to operate effectively in industry (Johns and McKechnie, 1995). For example, Ladkin (2000) and Coleman et al. (2002) suggests that traditionally hospitality management focus on the development of technical operational skills and competences, but the academic scope of the hospitality higher education is enduringly problematic (Morrison and O'Mahony, 2003). Consequently, in the last decade the design of hospitality curricula can be characterized by a tendency to merely add the term 'international' as a marketing tool to attract students rather than, as would have been required, radically changing the structure and competencies needed by an international manager. Furthermore, hospitality education was born out of a need to supply the hospitality industry with competent managers and is often driven by industry standards (Nelson and Dopson, 2001). Rather than focussing on competencies being perceived as insufficient learning outcomes, a current strong debate points to the need of restructuring hospitality education towards a hospitality curricula based on liberal study (for example, Airey and Tribe, 2000; Lam and Ziao, 2000; Brotherton and Wood, 2000; Lashley, 2000; O'Mahony et al., 2001; Morrison and O'Mahony, 2002).

Based on a wide ranging literature review this paper synthesizes the required factors for the development of hospitality managers derived from liberal study. Moreover, implications for the hospitality curricula are provided. The paper finishes with suggesting a qualitative research design to explore the implications of the transformation of the hospitality curriculum from its traditional vocational orientation to a liberal one for future managers using in-depth semi-structured interviews from a sample purposefully selected from hospitality educators and hospitality professionals in an

attempt to provide a holistic explanation of this new phenomenon and, by doing so, contributing to new knowledge on hospitality curriculum development.

Key Words: Capability, Hospitality education, hospitality managers, hospitality curriculum

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CONFUSION AND/OR EMPOWERMENT: THE IMPACT OF ONLINE PRODUCT REVIEWS AND RECOMMENDATIONS ON CONSUMER DECISION MAKING

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Purpose – The Internet empowers consumers to create and share product information based on their personal experiences. The importance of these product reviews and recommendations are increasing as more and more consumers tend to appeal and rely on this kind of sources. In a survey of 5.500 web consumers conducted by BizRate, 59% of respondents said they consider consumer generated reviews more valuable than expert reviews. The purpose of this study is to understand the uses of online product reviews and recommendations by the consumers and to explore their influence (if any) on decision making.

Design/methodology/approach – An exploratory case study method was used. A participant who is an expert consumer on using online information sources is preferred as unit of analysis in this study, since this kind of expert consumers are thought to be heavy and effective users of online product reviews and recommendations. Through semi-structured interviews with the participant, three different product choice experiences which reflect different uses of online product reviews were identified. The experiences were about the use of the online information sources for the purchase of a camera, a screen card and a lens for camera. Based on the analysis of these experiences and participant's decision making framework, the possible influences of online product reviews and recommendations on purchase decisions are explored.

Findings – Online product reviews and recommendations themselves are paradoxical. On the one hand, they help consumers overcoming barriers during the external information search by enabling access to information that cannot be found elsewhere, providing personalized information, offering the ratings/votes of other consumers and delivering cues for elimination of the alternatives. They also empower consumers as the control of market knowledge shifts from suppliers to consumers. However, because of the deficient, conflicting and disorganized nature of online reviews and recommendations, they also create consumer confusion, information overload and consumer misjudgment. Further, the time needed for information search and decision making also increases when consumers use online reviews and recommendations. In brief the paradoxical nature of online product reviews and recommendations produce both positive and negative consequences concurrently. Besides specific influences on purchase decision, online product reviews and recommendations may facilitate subsequent information search process for future purchase decisions with the accumulated knowledge and expertise in using online information sources.

Research limitations/implications – Because of its exploratory nature, this study provides a starting-point for further research. Since this study has focused on the experiences of an expert consumer, further research should consider consumers with different expertise levels and demographic characteristics. Furthermore, other attributes such as tolerance for ambiguity/complexity, consumer decision and learning styles may also help making the paradoxes of online product reviews and recommendations more explicit, and understanding the uses and problems in-depth.

Practical implications – Companies and website designers should find ways of organizing the information that could decrease consumer confusion and information overload. On the other hand, to enhance the consumer decision making, the marketing websites should add more detailed and

objective content on their websites. For example, by including the links of popular forums/blogs, websites may increase their trustworthiness.

Originality/value – In most studies, either positive or negative consequences of online product reviews and recommendations are analyzed. Rather than a one-sided approach this study provides an extended understanding of the influences of these information sources on the decision process by displaying their paradoxical nature.

Keywords: Online Consumer Review, Word-of-Mouth, Online Information Search, Consumer Confusion, Information Overload.

**INTRA-ARAB, ARAB MENA-US AND ARAB MENA-EU TRADE: IS IT TOO LITTLE,
TOO LATE? THE COMPETITIVE CONSEQUENCES OF ARAB NON-OIL PARTICIPATION
IN THE GLOBAL ECONOMY TO THE US**

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Apart from oil, international trade for the Arab states of Middle East and North Africa (MENA) has been a trivial element in their economic development program. A relatively small portion of total (non-oil) Arab trade, both in absolute terms and relative to other regions is devoted to intra-Arab trade. Likewise MENA-EU and MENA-US trade is insignificant, despite the enormous political pressure for a MENA free trade area by the US Administration and the EU. Various reasons have been offered to explain why Arab trade is relatively small. Some of these are policy related and, in theory, could be overcome -such as the high level of tariffs (and other) trade impediments in some of the Arab countries as well as political disputes-while others are not easily reversible such as the lack of product complementarity and the differences in per capita income which may encourage greater protectionism. There is also the issue of trade paranoia and fear of political infection.

The Arab countries have many similarities, including common religion, culture, and language. However, they also have several differences. They are diverse in terms of size, natural resource endowments, and standard of living. Some are primarily agricultural countries (e. g., Mauritania and Sudan), others are primarily energy producers (Gulf Cooperation Council (GCC)), and others have an emerging industrial base (Egypt and Morocco). Total exports by the Arab countries were about US\$130 billion in 1998. Over one-half of total exports were to industrial countries and another one-third was to Asia. Imports totaled US\$170 billion, of which about two-thirds were from industrial countries and another 15 percent from Asia. Very little has changed in the decade that has passed. Despite numerous attempts by the US and EU to promote regional and extra-regional integration, Arab MENA trade remains a small portion of world trade. Intraregional trade in countries with similar factor endowment-such as the EU-and with different factor endowment-such as NAFTA-is higher than trade among the Arab countries and across Arab MENA and the EU and the US.

In order to assess the competitiveness impact on the US of whether intra-Arab trade is indeed too little or too late, one would need to make a judgment on the "normal" or "expected" level of trade in the absence of policy related barriers to trade. While most observers believe that Arab trade is below what it could be, there is currently a gap in the empirical literature on estimating the potential for bilateral trade between Arab countries, MENA-US and MENA-EU. There is also a lack of understanding of the impact of this low trade profile on the US economy. Despite US dependence on oil from the region there is a limited reliance on the US for manufacturing products or services, other than defense oriented products.

This paper intends to start with a basic gravity model to measure the "expected" level of intra- and inter- regional trade for the Arab MENA region. The question that I seek to answer is the following: compared with a sample of other countries, with the same endowment and income, do Arab countries trade less with EU, US and intra-regionally with each other? While gravity models have been extensively used to measure bilateral trade among countries, they have not been used to

measure inter – and intra-Arab trade. The reasons for this shortcoming in the empirical literature on intra-Arab trade probably have to do with the demanding data requirements for estimating a gravity model and the dominant role of oil in trade which could bias the estimated ‘normal’ trade levels.

The MENA region is a ‘critical country’ group for the US. Despite this fact, we know very little about the institutional and cultural biases affecting these countries trade policies and ultimately US trade competitiveness. As the US expands millions of USAID dollars on building Trade Capacity, the MENA region stands unaffected. This study will go a long way in answering the very basic competitiveness question concerning Arab MENA trade – is it too little and too late or has the US policy community missed the proper institutional lever?

POSITIONING AND BRANDING – DEFINITIONS AND INTER-RELATIONS

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Purpose - The two concepts - Positioning and Branding - have become synonyms in marketing thinking (see, for example, “Positioning and branding your organization”, Simon Knox, Journal of Product and Brand Management, Mar 2004, Volume 13, Issue2, PP 105-115). This paper will explore the origin and the meaning of the two concepts and the distinction between them. It will discuss the importance of distinguishing between the two concepts and the implications for Strategic and Marketing Planning.

Design/methodology/approach - Both concepts are traced to when, where and by whom they were introduced to the realm of business and marketing thoughts and what their original meaning was. The literature in which these concepts appear, and the applications of these concepts, are tracked since their introduction. Changes in these interpretations and applications are analyzed and discussed as are the implications for Strategic and Marketing Planning.

Findings - It was found that there is a confusion and misinterpretation of the concepts, and as a result the planning process of implementing them is not optimal: Logical order of planning steps, the cause and effect relations, identification of target segments and discovering what will influence the consumer most – are all blended together without the correct model to set them in the logical place.

Practical implications (if applicable). - The paper proposes clear definitions of the various concepts, the relation between them and an effective order of implementation.

Originality/value - The concepts of Positioning and Branding are being used very often by marketers and strategy planner while their meaning and their generated implications are not clear, and therefore are not being used in the most effective way. The paper attempts to clarify them and to suggest how they should be applied by marketers, advertisers and strategic planners.

Conceptual Paper.

Keywords: Positioning, Branding, Strategy, Marketing, Advertising

QUALITY ORIENTATION AND ORGANISATIONAL PERFORMANCE IN THE PUBLIC HEALTH SECTOR: AN EXPLORATORY STUDY

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Purpose - In the light of the deep changes occurring in the Health Care Systems in the majority of countries, there has been an intense political involvement in encouraging the introduction of more rational management systems in the NHS with the objective of improving the quality of management of these organisations. With regard to the public sector, the financial problems surrounding the management of health care organisations have almost exclusively emphasised the need to reduce public expenditure which has been used as the main rationale to introduce measures to raise both efficiency and quality. This has been pursued through the implementation of concepts and management frameworks mainly derived from the private sector, which have to varying degrees, embraced aspects of Total Quality Management (TQM) (Hanson, 2000; Ovreteit, 2000). Although there have been numerous attempts to empirically demonstrate a positive relationship between quality orientation and performance (Easton and Jarrel, 1998; Hendricks and Singhal, 1997), concerns have been raised about whether quality programmes have effectively generated economic gains and/or improvements in organisational performance. While in previous studies the concepts of quality orientation and market orientation have been independently related to performance, few efforts have been made to build an integrative model that incorporates both orientations to examine its impact on organisational performance. A rough attempt to integrate both constructs was taken by Raju and Lonial (2002) who analysed the impact of quality and marketing functions on financial performance in the hospital setting. Nevertheless, these authors have only examined the market oriented-performance relationship focused on a sample of quality-oriented organisations. We believe that the conflicting results in prior literature between quality and performance are due in part to the fact that existing studies have focused mainly on the direct relationship between quality and organisational performance, and have ignored the indirect mediated effect of market orientation on the previous relationship (Agus and Abdullah, 2000).

As an attempt to fill this gap, this research goes further by addressing the following research questions:

To what extent and in which ways does quality orientation impacts on organisational performance?

To what extent does marketing orientation plays a mediating role in the quality orientation-organisational performance relationship?

To what extent does innovation plays a mediating role in the quality orientation-organisational performance relationship?

By attempting to answer these questions, the purpose of this study is to examine the synergistic relationships between quality orientation, organisational performance, market orientation and innovation. Moreover, it seems also worth noting that existing research is mostly focused on the American context, where the health sector is much more competitive contrasting with the European setting, in which health care needs to be examined in the realm of the public sector.

Design / Methodology / approach - The present study employs mainly a quantitative approach, which is traditionally associated with logical positivism (Gill and Johnson, 1991), as it accomplishes the research aims more adequately. Following this approach, the different constructs are measured

precisely and the data are collected under standardised conditions. Before the actual questionnaire was mailed, a small scale pre-testing procedure was conducted. This pre-test was conducted to six academics and four practitioners that helped to ensure content validity and to clarify ambiguous questions. Subsequently, in order to test the proposed hypotheses, a survey method was implemented. The questionnaire was sent to the CEO of a national-wide population of 355 health care organisations yielding a sample of 102 organisations, which corresponds to a 28% response rate. A structural equation modelling technique called Partial Least Squares (PLS) was chosen to conduct data analysis.

Findings - This study empirically validates that quality orientation has a major influence on performance. It also suggests that market orientation and innovation are important mediators to enhance the relationship between quality orientation and performance in the health care context.

Research limitations /implications - This study was conducted in the health care context, and may not be generalised in other industries. Moreover, as the sample used for this study was drawn from Portugal, the generalisability of the results to other countries remains to be tested.

Practical implications - The findings of the present may assist health care managers as well as public policy makers in the design of policies to achieve quality goals and organisational performance in this specific sector.

Originally/Value - The major contribution stemming from this research is to conceive an integrative model that incorporates the indirect mediated effect of market orientation and innovation on the quality-organisational performance relationship.

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AN EFFICIENT VALUE CHAIN, OR A SERVICE VALUE NETWORK? BEST PRACTICES DERIVING FROM ZARA

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Purpose: Today Service Economy allows to the development of new value processes inside firms. Perspective changes recently have led to a models evolution in terms of value creation and service provision. Then we want to investigate the influence of this changes in real business activities, in order to show the (eventual) link existing between new service, network theories and current business world.

Design/methodology/approach: The methodology used for this contribution is a field study, in order to analyze the industrial databases and specific internal information grouped in a set period in Zara , a multinational enterprise successfully operating in fashion sector.

Implications and Practical inferences: Investigating best practices deriving from Zara, we could deepen business processes management for successful retail, in the attempt to highlight service solutions and best performances in fashion world and in nowadays service economy.

Findings: Paper final goals can be summarized in the attempt to identify foundational service leverage solutions and logics involved in best case studies, referring to new firms governance and strategies, also for internationalization, and to a new concept of Service Value Chain.

Originality/value: Following the international literature movement focusing on service dominant logic, our contribution refers to nourish new paradigm trends and to favour the representation of a confident case for their main foundational premises.

Keywords: Service Value Networks, Service Economy, Retailing, Service Value Chain, Service Dominant Logic.

Name Session Proposal: N° 46. Supply Chain Management: Supplier-buyer and customer-seller relationships, purchasing, logistics, and distribution.

Type of paper: Case Study

THE CONTRIBUTE OF VIABLE SYSTEM APPROACH IN DIRECTING AND MANAGING INTER-FIRM RELATIONSHIPS

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Purpose: This paper aims to enforce interpretations about Business Systems and their interactions inside networked context and environmental relationships. They will be highlighted emerging interpretations of inter-firm co-operations following nowadays foundations of System Thinking and Service Logics, considering new related reflections about service value networks and service systems, verifying possible contributes deriving from Viable System Approach (VSA).

Design/methodology/approach: Studying several foundations of new dominant logics in international literature, it will be interesting to deepen inter-firm relationships in networked context following a theoretical comparison of system framework foundations, analyzing main significant features of VSA.

Implications and Practical inferences: Considering nowadays service economy (dense, articulated and interconnected), the study of relationships existing between related companies and how they evolve could be useful to direct and manage business networks allowing to their development and systemic survival.

Findings: Today complex service systems represent an emerging model for business experiences and competition, strengthening inter-firms relationships for competitive advantage and long run survival. The work leads to identify the specific contributes of VSA to inter-firms relationships directing and managing.

Originality/value: In a logic of continuing up-grading *open source* project for International multidisciplinary Paradigm enriching, it seems to be useful to contribute to deepen the effects of multi parts influences on business processes, operations and interconnected activities, in the context of network. Verified the compatibility of system visions and service logics for new interpretations of business behaviour, the inter-firms relationships and the contribute of VSA to their understanding surely deserve to be further investigated.

Keywords: Viable Systems Approach, Inter-firm Relationships, Service Systems, Networked Interactions.

Name Session: N° 23. System thinking: Identifying and solving real-world problems, the interactions between the different parts of the system, and their practical implications for improving organizational performances

Type of paper: Theoretical paper.

TAPPING THE MANAGER'S MIND THE USE OF DIARY STUDIES IN INTERNATIONAL MANAGEMENT

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Purpose - This paper points out the necessity for more qualitative research in international management. It especially suggests the diary method as a tool to elicit tacit knowledge that may not be detected by traditional research approaches. As a large part of our knowledge is deeply anchored in the personal mind, is tacit and unconscious, it defies easy articulation and communication as depicted in the observation that 'we can know more than we can tell' (Polanyi, 1966, p. 4). This poses a particular challenge to international management research as managers' decision-making capabilities largely rely on tacit knowledge (Stubbart, 1989). By identifying these tacit parts of knowledge, new insights in managerial decision making are expected which is of mayor relevance to theory and practice.

Design/methodology/approach - A review on the literature in international business research shows that quantitative methods dominate it, without being able to give full answers to all research questions. One promising qualitative method is the diary method. For further details on the diary method see Bolger, Davis and Rafaeli (2003). A thorough analysis of diary studies in other disciplines shows its potential and ability to create knowledge.

Findings - A tacit knowledge perspective has been widely used to investigate the link between the multinational company's (MNC) internationalization and the behaviors of managers (Athanassiou and Nigh, 2000), knowledge transfer processes in MNCs (Kogut and Zander, 1993, 1995; Kotabe *et al.*, 2007; Lam, 2008), types of internationalization processes (Gassmann and Keupp, 2007; Nordman and Melén, 2008), or knowledge acquisition strategies from foreign joint venture partner firms (Dhanaraj *et al.*, 2004). A review of the literature of the international management literature back until 1985 illustrates the dominance of quantitative methods in investigating tacit knowledge. It has been assumed that knowledge can be traced by asking people to fill in questionnaires, i.e. that tacit knowledge can be easily transferred into explicit knowledge. However, a closer look into the psychological literature provides for more succinct insight. Tacit knowledge resides outside our consciousness (Gioia and Ford, 1996); it is ultimately related to actions such that it reflects knowing *how* rather than knowing *what* (Brockmann and Anthony, 2002).

In the last few years, a growing number of studies in international management have reminded us of the cognitive capabilities of key decision-makers as a critical success factor for organizational performance (Murtha *et al.*, 1998; Harveston *et al.*, 2000; Gupta and Govindarajan, 2002). Labels, such as *global mindset* (Perlmutter, 1969; Maznevski and Lane, 2004; Bouquet, 2005; Levy *et al.*, 2007), *global orientation* (van Bulck, 1979; Moen and Servais, 2002), or *international outlook* (Wiedersheim *et al.*, 1978; Reid, 1981), have been used to illustrate discrepancies between the foreign and the home market as perceived by the manager. Researchers have investigated miscellaneous knowledge dimensions and structures, but to date, only a handful of studies have explicitly and precisely identified the type of knowledge under investigation and related it to the associated layers of access (Brockmann and Anthony, 2002). These distinctions as well as the respective research methods deserve more attention. As mentioned previously, there is a dominance of quantitative methods when researching tacit knowledge in international management empirically. While various qualitative research methods

have been suggested, most notably from disciplines other than international management, e.g. repertory grid technique (Kelly, 1955; Fransella and Bannister, 1977), causal and cognitive maps (Eden, 1992; Hodgkinson, 2004), story-telling (Hansen and Kahnweiler, 1983; Kaye and Jacobson, 1999), one particular method has largely eluded the attention of international management researchers. The diary method as an unstructured journal emerged in disciplines such as medicine, sociology, psychology, and market research, and studies illustrate its usefulness in detecting largely unconscious knowledge. Indeed, the diary method is an excellent instrument for studying activities, events, behaviour and other phenomena *in situ*, i.e. within the context of a given situation (Bolger *et al.*, 2003).

We discuss the application of the diary method in international management with reference to three areas of research. First, conflicting headquarter-subsidiary relations in the MNC (Hedlund, 1980; Martinez and Jarillo, 1989) have been a prominent research topic. Using the diary method may help to reveal underlying emotions, perceived barriers to strategy implementation, coping mechanisms, and potential changes in power distribution over time. Second, international marketing researchers may focus on the balance between standardization and adaptation, possibly by redefining headquarters' directions or mediating the tension between thinking globally and acting locally (Kotabe and Helsen, 2001). Finally, in international human resource management, diaries may more precisely illustrate existing challenges for expatriates and how they deal with them (Boyacigiller, 1990).

Originality/value - Taken collectively, we suggest the diary method as an ideal tool for researchers in international management when tapping into managers' largely unconscious tacit knowledge. By suggesting areas of application, we prepare the field for an empirical study. This will provide new insights to international management research and practice.

Keywords: tacit knowledge, decision-making, diary method, qualitative research in international management

Classification: Conceptual paper

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FOSTERING TYPICAL PRODUCTIONS THROUGH STRATEGIC COLLABORATION: TRUFFLES MARKET IN CAMPANIA

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Purpose: This paper aims to describe truffles market in Campania highlighting the actors and their interactions and drawing the market structure. Market analysis is finalized to detect development opportunities and limits to grow expansion. The goal is to suggest managerial solutions in order to promote market development.

Type of paper: Viewpoint This paper illustrates the author's viewpoint about truffles market peculiarities and compares the case of Campania to the best practices realized in other territories in order to increase the value of typical productions and achieve local development.

Design/methodology/approach: The research work starts with a preliminary examination of the industry features through the use strategic management approach. The industry has been studied using the Porter's five forces model defining its attractiveness for all business actors.

The demand analysis has been accomplished using information and statistical data provided by national and local official agencies (ISTAT and Regione Campania).

Moreover the paper refers to relevant literature about typical products. A relevant source of information and ideas has been the web. The web site information has been helpful to define who the main actors are and to outline their roles and their expectations.

A benchmarking analysis has been useful in order to select the best practices adopted in other territories or in different industries that can be coherently adapted to the truffle industry in Campania.

Findings: The main findings of this research are:

Truffles market in Campania has relevant growth opportunities as shown by economic data (such as annual total sales; growth in selling prices and export sales).

The productive chain shows several inefficiencies related to the presence of information asymmetries among the actors involved. The inefficiencies verified in products distribution represent the principal factor delaying market development.

Consumer behaviour and needs for typical products corroborate findings in economic data analysis highlighting a good market potential.

Benchmarking analysis shows several useful ways and tools to remove inefficiencies through collaboration among principal actors of productive chain. In order to encourage this way of collaboration has been suggested the consortium answer among producers, local agencies, and other relevant actors in productive chain.

Research limitations: Principal research limitations refer to data collected. Advances in this analysis may use several tools (i.e., questionnaires or focus groups) investigating specific features, roles and expectations of actors involved.

Originality/Value: This work belongs to studies and literature analyzing typical productions effects for development of territories through marketing and strategic management tools.

In this point of view, typical products like truffles represent important factors of development for a territory. In this literature, truffles market analysis in Campania represents a first original contribution of this paper.

Solutions suggested in this paper may be considered a helpful methodological guideline for all industry actors in order to foster typical productions through strategic collaboration.

Keywords: truffle; improving typical productions; agricultural market development; strategic collaboration; consortium; Campania.

ENVIRONMENTAL PERFORMANCE OF CROATIAN COMPANIES REGARDING OWNERSHIP

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Purpose: The main purpose of the paper is: to examine differences in environmental performance among companies of different ownership-type in Croatia, to determine main obstacles in achieving better environmental performance, and to explore influence of environmentally friendly products/services to certain company' characteristics.

Design/methodology/approach: Within the secondary research, the relevant literature about environmental performance of companies of different ownership type was consulted. Within the primary research, the study was conducted at the sample of 350 Croatian companies and 63 questionnaires were received. Statistical data analysis was done using SPSS 13.0.

Findings: There are no differences among companies of different ownership types in the majority of environmental dimensions. Statistically significant differences can be established in only two dimensions: product/services features and device/equipment features regarding prescribed environmental protection standards. The highest obstacles in achieving better environmental impact are: the lack of new clean technologies, company's orientation to other goals, and high purchasing costs of clean technologies. Among all companies, the highest is influence of environmentally friendly products/services on image.

Research limitations/implications: There are not many studies that examine connection between company ownership and environmental performance. Therefore, future studies are required to broaden knowledge in this area.

Originality/value: The paper shows comparison of environmental performance among companies of different ownership-type in Croatia, the main obstacles in achieving better environmental protection and influence of environmentally friendly products on certain company' characteristics. Hence, it could be useful to Croatian academics and practitioners that manage environmental performance.

Key words: environmental performance, ownership-type, Croatia

FOREIGN DIRECT INVESTMENT FROM EMERGING COUNTRIES INTO EUROPE

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Purpose - This paper analyses the prominent features of recent trends in FDI flows from Emerging countries into Europe. Emerging countries are surging as important contributors of outward FDI in both developing and developed markets around the world. The paper focuses on Chinese investment into Europe with a particular consideration given to the manufacturing sector. The purpose of this paper is to analyse this new phenomenon in the context of the Eclectic Paradigm.

Design/methodology/approach - The analysis incorporates aspects related to drivers and motivators, elements of difference, and includes considerations of the institutional role in influencing the competitiveness of firms and the strategies of countries.

Findings - From this analysis emerges a contribution to theory development. A holistic model which incorporates government's role in influencing FDI is developed to advance understanding of Chinese OFDI.

Practical implications - This paper addresses the rapid increase in outward foreign direct investment from the Emerging markets. In particular focuses on Chinese investment into Europe. A model incorporating governmental influences on FDI has been developed to explain this phenomenon. The issues that arise for the new entrants in terms of strengths and weaknesses and for incumbents in terms of threats and opportunities will be discussed. While the new entrants retain strengths from their home country base, they also face considerable challenges that require major improvements in their capabilities and changes in their modes of operating. Likewise while incumbents face threats from the new entrants, there are opportunities for them to respond to these threats in a proactive fashion.

Originality/value - Data and scholarly research on the topic of FDI from emerging countries and on the emergence of China as a potential investor in Europe are limited. Since emerging markets are playing a growing role as sources of FDI there is a need for scholarly research in this area. This should include studies at the firm level. Longitudinal case studies of the new entrants and of incumbents might be a useful means of assessing the evolution of these players in terms of their strategies, building of capabilities and their commitment to innovation.

Research paper

JEL Classification: F21, F23, F29

Keywords Foreign Direct Investment, Emerging Markets, Rapid Development Economies, Chinese Investment, Europe

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IS TIME ORIENTATION CAUSED BY CULTURE AND INFLUENCING URBAN CONSUMPTION?

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Purpose – Perception of time is a crucial topic in consumer behavior. The main purpose of this research is to identify the patterns of time orientation in different countries: Finland, Spain, Japan and Italy, looking for the possible relation with culture as a second aim. Finally, in this research, we explain the effect of the different patterns of time orientation on diverse consumer behaviors, focusing specifically on café consumption behavior.

Design/Methodology/Approach - After conceptualizing time orientation in this research it is followed the six-dimension frame by Usunier and Valette-Florence. For these six dimensions we selected three of the four items they developed in their work to measure each dimension, and we added the present dimension, measured also through three items. A semistructured questionnaire was used, considering six parts in order to measure: general time orientation; time orientation at cafés; preferences and main evaluative elements when selecting a café; first impression and expectations at cafés; behaviour at cafés; and personal characteristics (values and socio-demographic characteristics). This questionnaire was administered to eight hundred consumers from Finland, Spain, Japan and Italy. A stratified multi-stage random sample with fixed proportions for sex, age, time and place was used.

Findings - We ran a factor analysis, achieving very good results in all the dimensions but not in the items composing the preference for non-linear/unorganized time. This fact can be explained because we had already measured the opposite dimension through other items in the same measurement. Having deleted these three items the loading and the composition of each dimension were appropriate and these six dimensions explain 63.770 of the variance. At a second step Pearson correlation was used to analyse the relation of these factors with the Hofstede's dimensions. Finally multiple correspondence analysis was used to explain the relation between these factors and different consumer behaviours described by the consumer in different countries when selecting and going to cafés.

Research implications – When choosing and enjoying time at cafés different causes can be described, being the time orientation pattern shown in different countries, one of these determinants. Through this knowledge more efficient marketing strategies can be developed and implemented. Thus, the success of certain types of café, the relative importance of certain attributes, the location, the perceived image and the perceived price are different for the different clusters following diverse perceptual time patterns.

Originality/value – Urban consumption and how time orientation determinates it, is very important, both academically and professionally. This paper tries to contribute in this field describing consumption at cafés through time orientation patterns in different countries.

Key words: time orientation, culture, urban consumption, cross-cultural research.

Research paper

THE EVOLUTION OF INTERNATIONALIZATION PROCESS OF ITALIAN SMEs

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The aim of this paper is to analyze the consequences of globalization on the internationalization processes of Italian SMEs, underlining the importance of social capital as competitiveness factor.

An increased number of enterprises deciding to operate on foreign markets are faced with a very complex competitive and institutional environment which is based on a large net of commercial, productive, financial and communicational relationships (Rispoli, 2002). This process start from the unifying force of technology that has made affordable for all communications, transport and travel (Levitt, 1983). The ultimate consequence of this process was the creation of supranational market that require a rethinking of strategic conduct by firms. While in the past, enterprises that operate in a geographical area weren't interested at strategy of foreign enterprises, today the distance is no longer a factor for protection against competition. The tariff barriers fall and the free capital circulation have created strategic opportunities which have changed the attitude of many sectors and increased the competitive pressure. However the global vision of economy and culture has also raised the importance of localism and the social, economic and cultural development of territories. For these reasons the *glocalism* phenomenon has emerged in recent years (Bauman, 2005); the places have begun to interact with the flow that passed through them, determined by global players.

All these changes imply for enterprises the need to learn to govern competitiveness (Bertoli, 2004), making critical choices of internationalization, especially for small and medium enterprises (SMEs) that need to expand their activities beyond the market home.

Internationalization, which in the past was a way followed exclusively by major enterprises of industrialized countries, has been transformed by the elites phenomenon in mass phenomenon, regarding all businesses and all activities (Grandinetti and Rullani, 1996). The classic international models (based on costs advantages) are not generalized and applicable to all enterprises system, because the *glocalism* has favored new internationalization forms, complementary to the traditional ones. These new forms are based on relationship advantages (Figure 1), understandings, not like a generic availability of cooperation and confidence, but as the development of real forms of social capital of reciprocity (Pizzorno, 1999).

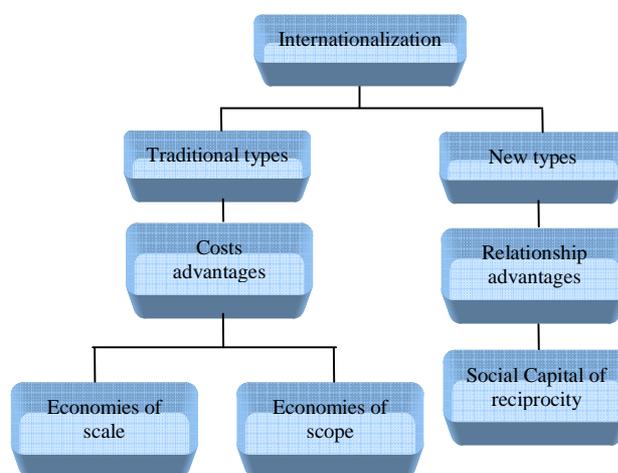


Figure 1 Internationalization models. Source: Martini and Rossi, 2009

For productive systems characterized by a large presence of SMEs, such as the Italian system, international development can't be based on codified and standardized production rules. The internationalization of small firms, in fact, requires an analysis of their traditional limitations and a focus on their specific characteristics²⁹⁰. For this reason in the new scenery are favorites new international processes with different dynamics from the traditional one. Particularly the Italian SMEs have had to rethinking their strategies linking the international development with the valorization of local resources.

In complexity economy (Rullani, 2004) the territories of origin, in fact, have become fundamental to the international success of enterprises, engraving on competitive advantage: the added value for Italian enterprises is linked to specify their identity, valuing intangible resources, first of all social capital²⁹¹, which may constitute important elements, conditioning the territorial and productive perception that have internal and external customers. Particularly are advantaged those enterprises systems able to create products capable to balancing the technical-economic and territorial-cultural components.

However, not all productive experience have successful, because someone are linked to competitive strategies incapable to be open to new forms of "radicalized internationalization", and incapable to making the territory an opening relational system for the production and spread of social capital, the unique differential component for a territory area and for the entrepreneurship that insists on itself (Martini and Rossi, 2009). In this way, the international success is based on an interactive process that involves not only possible agreements among entrepreneurs, but also the ability to rely on other players in the same territory, other stakeholders, interested to develop, not only the enterprises system but all the (actors of a) territory. Social capital, particularly the bridging type (that is composed by weak ties and it allows the opening toward the outside), allows to direct, to inform, to support and to lead to new territories and markets not easy to achieve, which can be explored

²⁹⁰ These limits are linked to distinctive characteristic of Italian firms: presence of a strong family that supports the business, insufficient use of external skills, undercapitalising, aversion to debt, limited availability of capital to make foreign investments, absence of human resources for develop international processes.

²⁹¹ Social capital is rooted in social relationships of specific territory. In this sense, the social capital is not a component transferable from an area to another one, that is possible with financial, physical and human capital.

through the support of the local community, where mature the intention to improve their ability to share a path international growth.

Keywords: internationalization, glocalism, social capital

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SEGMENTING PATIENT MARKET IN POLISH HEALTHCARE THROUGH THE USE OF CONJOINT MEASUREMENT TECHNIQUE

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Purpose - The principal purpose of this paper is to present the applications of conjoint measurement in the recognition of differentiated patient preferences in the healthcare market in Poland. As for the mainstream analysis, it aims firstly to determine the relative importance of attributes associated with healthcare providers in Poland. In the next step 4 patient segments have been identified and described. Finally, the paper demonstrates the application of research findings in the marketing practice of healthcare providers.

Design/methodology/approach - Borrowing from the literature on theory of consumer segmentation, especially consumer-based segmentation, supports a research hypothesis that patient preferences and choices are multi-dimensional constructs. They are determined by patient age, income, gender, work status, education and place of life.

Subsequently, an empirical research has been conducted through the use of conjoint measurement technique. A set of five attributes (i.e. cost of the service, service availability, market image of the healthcare provider, peer-group recommendations, and comprehensiveness of the healthcare offer) was used with the corresponding levels set on the basis of a pre-test. Finally, nine healthcare provider profiles has been selected for presentation during the interviews with patients.

When designing a research sample, for lack of an updated list identifying all the elements of the defined population, the selection was based on the *random route technique* (Gallup Poll sample). Finally, the sample group amounted 506 patients who met the following prerequisite: „At least one encounter with a healthcare provider within a year preceding the survey” and conformed to the quota assigned for the state (age, sex). The market research has been carried out using face-to-face interviews.

The research employed the traditional additive measurement, which makes it possible to determine the total utility, and consequently, to understand patient preferences when it comes to selecting a healthcare provider.

Findings - The obtained results clearly demonstrate the dominant role of availability and perceived quality of healthcare (based on recommendations and market image) as advantages in the process of choosing and consuming of medical services, against the drawback in the form of direct payment (upon receiving the service) rather than anticipated payment (health insurance contributions).

Furthermore, the study suggests that there are four distinct segments in the Polish healthcare, significant demographic differences among these groups, and substantial differences in sales potential among the segments. “*The Price Insensitive Segment*” and “*The Recommendations Segment*” were found to have the greatest sales potential. First one consumes relatively much healthcare services, and the second one is interested in complex healthcare and puts little importance to the price of service.

Practical implications - Healthcare managers could use the information from this study to make more informed marketing decisions. The above presented findings provide the basis upon which health care managers could design effective marketing strategies. It is possible to put the results to further use, especially in designing:

the locations of the new service-provider network and its marketing strategy;
the positioning strategy in predefined segments of the patient market;
the communication policy of the healthcare institutions which want to maximize the efficiency of their messages in their target groups;
the healthcare offers addressed to the predefined patients segments;

The research findings let draw the conclusion that in the newly created competitive environment in which healthcare providers now operate understanding patient expectations and evaluation is essential, not only to protect existing patient lists, but also to attract prospective customers who may be motivated to look for an alternative service provider.

Research limitations/implications - The present study provides a starting-point for further research in the health sector. Firstly, there is a need for further methodological research to assess the predictive validity of conjoint measurement in healthcare market. To date, published research in the area is scarce and it covers other areas but not health sector. Second, there is a need for more empirical work to describe and identify major patient segments. There is also a need for studies in different geographic regions of the common European market to determine if major patient segments are similar across geographic locations, or if certain segments are found only in certain regions. Further, additional demographic variables should be included in future studies.

Originality/value - The paper contributes to the discussion referring methodology of patient preferences measurement. The application of conjoint technique made it possible to observe the multi-dimensional character of choices made by the patients. This approach is a promising direction for studying customer preferences also in other markets. It offers companies a chance to get to know the customers' behaviour in a more precise manner, seen as their choices are rarely a function with a single variable.

Keywords: *Poland, Healthcare, Patient Choice, Market Segmentation, Conjoint Measurement*

Paper type – Research Paper

CULTURAL HERITAGE INTERPRETATION , AUTHENTICITY AND THE VISITOR EXPERIENCE: A CONCEPTUAL PAPER

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Purpose – This paper researches the influence of interpretation on cultural heritage visitors' experience in general and on the perception of authentic experience in particular. The paper explores the concept of authenticity and also suggests that visitors can experience different forms of authenticity.

Design/methodology/approach – Integrating the innovative aspect of cultural heritage interpretation the paper, concluding from a wide ranging literature review encompassing the main areas and concepts such as cultural heritage tourism, visitor experience and authenticity and develops an initial conceptualization on visitors' authentic experience so far not existing in literature. The approach is based on qualitative methods, in-depth and semi-structured interviews and participant observation. The paper aims to critically assess the factors of cultural heritage site interpretation strategies in order to enhance visitors' authentic experience. Specifically, this research is guided by the objectives of identifying and analyzing the factors of cultural heritage interpretation methods in tourism, the role of interpretation in enhancing visitors' authentic experience and to add to the body of knowledge on how authenticity is presented and perceived by contributing to better understanding the visitors' perceptions on the various factors of experience when visiting heritage sites with respect to authenticity.

Findings –Practical implications – A distinction is drawn between existential authenticity and authentic experience. This paper provides the factors of interpretation related to cultural heritage sites and ways to experience authenticity. The paper examines the current level of knowledge and addresses the current gap in practice of not sufficiently addressing the need to enhance visitors' authentic experience and provides pragmatic suggestions.

Originality/value – This study calls for differentiating authentic experience as to cultural heritage sites. The hypothesized factors of experiencing authenticity at cultural heritage sites are provided.

Keywords: Cultural Heritage Interpretation, Visitor experience, Authenticity

Article Type: Conceptual Paper

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CHINESE ENTREPRENEURIAL MODEL: AN EMPIRICAL INVESTIGATION ON PRATO INDUSTRIAL DISTRICT

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In the field of study of Ethnic Entrepreneurship a strong attention has been paid in the last years to Chinese migrant Entrepreneurs by describing their role both in China and in foreign countries (Levie, 2001; Holt, 1997).

Previous researches have outlined some traits that can be defined as typical of Chinese Entrepreneurship, such as: a strong family orientation (Collins, 1998, 2002); the importance of Chinese cultural heritage (Krug and Laszlo, 2000; Zapalska & Edwards, 2001); self achievement (Lee & Chan, 1988); and networking dynamics (Lee and Tsang, 2001; Butler, *et al.*, 2000). An interesting issue in ethnic entrepreneurship is the one of *mixed embeddedness* (Kloosterman, *et al.*, 1999, Kloosterman and Rath 2003) that helps in describing how two different cultures mix up in specific contexts. On the other hand, Chinese communities have shown a very high degree of independency from hosting cities services and communities and have revealed a specific network organization that is able to support migrant Chinese entrepreneurs' needs.

How the Chinese Entrepreneurial model is affected by mixed embeddedness? In order to answer to this research question, this paper examines the dynamics of Chinese Entrepreneurship in the Industrial district of Prato, in Tuscany (Italy) a city that is specialised in garment and textile production, and hosts the biggest Chinese community in Italy. Data from a questionnaire submitted to 50 Chinese Entrepreneurs based in Prato will be analysed and findings will be supported by a selected case study. In order to support hypothesis an extensive literature review will be carried out and will focus on Chinese Entrepreneurship and Prato Industrial District Entrepreneurial model.

Keywords: Chinese Immigrant, Industrial District, Mixed Embeddedness, Entrepreneurship.

Type of Paper: Research Paper

CRISIS COMMUNICATION IN THE CATALAN HOSPITALITY INDUSTRY

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Purpose: the 21st century is characterized by the facility and the speed in which any information circulates throughout the world. The mass media provide the public opinion, with political, cultural, social and economic information in such way that the news, interviews and reportages about the performance of companies usually play the lead in the media sections of economy. But not everything are good news, there is also a presence of news that the media bring to the public opinion related with the entrepreneurial crises (Berno T.; King, B. 2001), such as the difficulties of companies in economic crisis, the processes of work restructurings, the fusions, accidents, pollution, etc. In this sense, the media adopt an essential role as mediators between the companies and their targets in transmitting positive or negative information. This situation has a special significance in a sector like tourism, which involves millions of persons and their movements every year. Destinations, hotels, tour operators, and air companies work in the delivery of services to persons in a weak context, because it is in touch with the environment, the cultural heritage - the sea, mountains, cities- and it is highly sensitive. Therefore, the management and planning of crisis communication becomes fundamental in order to act with planned communicative criteria in front of media, in case any situation of crisis happens.

For this reason our research goals are:

1) To identify if a set of Catalan relevant hotel chains has planned the communication of crisis and which typologies of crisis has considered. 2) If the size of the companies has a significant influence in the crisis communication planning.

Design/methodology/approach: a qualitative research has been developed, based on a theoretical frame with the conceptualization of the main contributions of the academic literature to the entrepreneurial crises (Faulkner 2001, Henderson 2003) and the most usual case studies of situations of entrepreneurial crisis as physical environment, human or social environment and management failure (Tse, So & Sin 2006) and more detailed: terrorism (Evans & Elphick 2005) industrial accidents, work conflicts, external accidents in the hotels provoked by the company, hotels pollution, severe operating errors in the provision of the service (Coobms 1999), economic crisis (Prideaux & Witt 2000, Okumus & Altiney 2005), negative information on the Internet, disasters and catastrophes (Blake & Sinclair 2003). 38 hotel chains with 4 or more hotels were identified, of which only 24 wanted to take part in the research. The qualitative research was carried out through depth interviews to managers of those 24 hotel chains, which in total represent an amount of 495 hotels in Catalonia (Spain). In order to achieve the most reliable information the international chains were not selected because their decision centre is located abroad. Instead, in order to collect information from the first managerial levels that can take decisions, those chains that were selected had a majority of the property in Spain, and the decision centre was located in Catalonia.

Findings: The results of the eight crisis typologies analyzed reveal that the majority of the hotel chains that have been analyzed don't have eventual situations of crisis planned.

Among those few companies that do have plans of communication to face crises, they had planed a sort of typologies related to labour accidents, disasters, the internal work conflicts and mistakes in the delivery of services processes. It has also been observed that the size of the companies measured by the number of employees or by total income is a relevant variable that conditions the forecast in the

planning. The bigger are hotel chains, the more they plan the communication of crises, except when crises happen due to a mistake in the delivery of a service. In this last case, as the service is the most important part in the contact with the customer, the size of the companies is not significant.

Research limitations/implications: This research is a first approach to the matter and its purpose is not to extrapolate the results to the rest of the Spanish hotel chains.

However the results show some trends that could be approached in future researches, as it is shown that the analyzed hotel chains have not planned crises and should have instruments of planning that could allow them to react in front of any kind of crisis and not having to face these crises when they have turned up in the media, with negative consequences for the company.

Originality/value: the traditional research in crisis communication has put the emphasis in evaluating the information that media have published after crisis, through content analysis techniques. The originality of this research is that company managers have been interviewed in order to identify their motivation towards the crisis communication planning.

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THE NECESSARY OF RATIONAL SOCIOLOGICAL APPROACH TO INDUSTRIAL CHANGES

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Purpose - KEO Organization has its own brewery producing the leader local beer, (KEO beer) the leader range of wines (KEO wines, brands such as Othello, Aphrodite and Thisbe), KEO juices (a full range of flavours of fruit juices), St. Nicholas mineral water (the leader more than 50% market share) representing Teacher's, Langs, Laurent Perrier, Disaronno and many other world wines known brands in Cyprus.

In the medium term plans of KEO, we are planning to build our new brewery in which we intend to produce beers other from ours such as Heineken family beers and InBev family beers (Beck's, Stella Artois, etc) while we are in the process of finishing our second plant for bottling mineral water.

The idea of a doctoral reset project, in my case, is to analyze and develop a methodology of communication management along with project management and documentation of this huge project that is expected to be fully materialized in the next five years.

Taking under consideration that KEO plc is an eighty year old Company, with many obsolete mentalities and having the average employment of its employees to succeed 27 years, a key success factor in the efficient application of the middle term plans will be the effective change management and communication to the people that they have been doing things in a certain way for so many years.

Additionally, the modernization of the plans and the sales structures will create redundancies that will need to be handling in such a way not to disturb the operation of the Company. The whole project involves a lot of construction, engineering projects, finance, transitory period, human recourse status and of course a lot of unexpected situations that the management of the Company will have to face during changes along with day to day matters.

In all these operations, it's very important taking under consideration that the organization and structure of KEO plc it is consisted by three Top Managers out of which one the Production Director is expected to retire the next fifteen months.

Methodology - The research will be based a lot on cultural analyses of the outstanding human resource of the Organization, aiming to create a SWOT analysis leading to a SWOT matrix in view of the coming radical changes in the Organization.

Taking under consideration the major Principles of project management and all the aspects being involved in the triple constrain of big projects, the research will aim to minimize risks and unpredictable issues that we raise during the materialization of the project. In the research I will try to determine the role and the importance of the different stake holders and categorize them in such a way, in which communication and documentation during the project will be done in the best possible way with the highest efficiency and speed. These are elements that will be critically needed for the materialization for such great changes taking under consideration that business will still run as normal. Taking under consideration that no additional managerial recourse will be hired in order to materialize this project it is important that in this research I will be able to determine which of the outstanding resources will be able to help in which part of the project and which extent.

In this project my personal interaction will be very determine and crucial, taking under consideration the fact that the project will be materialized at the same time that business will still be running as

normal. Due its complexity, the project will need skills, expertise and knowledge from many different sectors, such as business, marketing, communication, project management and of course human resource management.

My extensive backgrounds in labour intensive industries were going through changes while running business as normal, renders me as an ideal project manager for the materialization of such project. Apart of being the one who will monitor on computerized (MS Project) methodology the project and in triple constrains (time-quality-cost) at the same time I will be the person who will be liable for the day to day performance of the Organization.

The fact that I am also the person in charge of the product development obviously makes my role even more determining due to the fact the reengineering of the Organization will deeply look into the advancement and the modernization of the products, especially the packaging.

Summarizing my intended contribution in the project, I will obviously be the one to monitor, measure and designing the project along with managing the changes and the communication regarding the project, taking care at the same time of the business.

The doctoral project under suggestion it is expected to contribute a lot in the development of the Organization and working mainly from the point of view that will restrict me in processing these major and critical changes of the Organization, in the most scientific possible way, documenting and communicating all the steps of the project management in an audited way that will be reported regularly to my academic advisor.

The entire project will be in this way computerized documented and most of the performance factors will be term in such a way to be measurable.

This project will help a lot into the development of the human resources involved in it.

It will create another interesting approach in project management for organizations that they are still doing business as normal.

This project if will be documented as a doctorate research, it will create a very interesting case study of the project and change management of one of the biggest and oldest industries in Cyprus.

It will establish me as an academically correct management applied director.

Documenting this project in a research study, that will be done in such a way that academically will be useful, will contribute in a theoretical level in management in many levels. Firstly, and more important will be an excellent study, to prove how important is to apply scientific approaches into reality, especially in project management but also in showing the importance of the mutual feedback during changes in an Organization. Secondly, I will try to examine in detail the full potentials of application of technology of the computerized project management by calculating and revising a project along its whole materialization.

Additionally to the two previous issues in this project I will aim to give alternatives, or solutions to certain incompatibility issues on the theory and the practical application when it comes to multiple labour intensive needs that usually conclude to only one person who can not be specialized in many fields like legal, construction, financial, operational, commercial etc.

The research study in this case will fully exploited the project management theory along with the communication and change management necessities of a major changes project (both organizational and physical) at the same time with product and human resource reengineering. The idea is to elaborate and design theoretically an academical approach that after and during its application will need to tackle practical problems that will mainly arise from the fact that all these changes will take place at the same time with as a usual business. Basically, I will look into a theoretical outline that will be fully compared at the end, with all the problems of applying theory into reality.

Findings - Academically this project will contribute in the science of project management, especially at the sector of the communication management (of a project) by taking theory into actual application and materialization.

Taking under consideration that it is going to be a project that will be a turning point of the beverage industry of Cyprus the documentation through out this research will obvious consist a case study it self in the business and academic world of Cyprus.

Taking under consideration that I have been provided with the promise of full support from the University of Nicosia especially from the Marketing Dean Dr Vrontis, I am sure that I will have enough support to materialize the research through out its requirements.

THE FILM AND AUDIOVISUAL CLUSTER IN MONTREAL: CHALLENGES FOR THE DEVELOPMENT OF DISTRICT FIRMS

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Film and audiovisual production have been evolving over recent years and are now often seen as part of the New media sector, one of the main sectors of the Creative industries sectors. The sector has evolved from purely audiovisual techniques to various creative services used in television, advertising as well as film. Montreal has long been known as an important North American hub for Film and Audiovisual production, especially with the presence of the French and English production of the CBC (Canadian Broadcasting Corporation) and the National Film Board of Canada. This reputation has continued over recent years with important developments in Visual Effects, often related as well to the important developments in the multimedia sector and the Multimedia City of Montreal, which has attracted important firms such as Ubisoft, Electronic Arts and others. However, the protectionist attitude of the Hollywood filmmakers at times, as well as the negative effects of the long screenwriters' strike in Hollywood on the Montreal production, have been amongst the factors that have spurred important preoccupations for the future of the Montreal Film and Audiovisual production. In this context, the City of Montreal has decided to develop a strategy to protect and develop the future of this creative industry in Montreal, in the context of increased competition in the sector, from the US, but also from other Canadian provinces. It is in this context that efforts have been made since 2004 to try to develop a district or cluster strategy in this sector and ensure this industry's future. We chose the Film and Audiovisual production district or cluster, to investigate the birth of a creative cluster and identify its challenges and difficulties, as well as the sources of success for the development of such a district or cluster.

Our paper will thus highlight the challenges and difficulties in developing cooperation between businesses of a very competitive creative sector, something which seems important to us since writings on clusters too often present fully mature clusters, without showing the difficulties and challenges often related to cluster creation and development. It thus appears useful to look into emerging clusters to identify these challenges, not only to have a more realistic picture of cluster development, but also to help governance bodies and firms in other sectors better understand the fact that cluster development is a lengthy process, maybe all the more so in sectors that are less concentrated and count more small and medium-sized businesses than large firms, and thus many more independent actors.

In this paper, we will begin by defining the concept of industrial districts and clusters in more detail since it is often taken for granted, but we consider it important to develop on our precise view and highlight the recent debates on this concept. Once this done, we will then define the cluster policy of the City of Montreal, especially as concerns the Film and Audiovisual production sectors, and finally analyze the process of cluster development in this sector, highlighting difficulties and challenges encountered in this process of cluster or district creation. Our paper will thus center on the process of cluster creation, as well as on the conditions which appear to facilitate or to impede the development. To refer to our theoretical elements, we could say that social capital, as defined in Bourdieu's work as the set of resources that are related to a durable network of relations, with "interconnexions" and

“interexchanges’, is only beginning to develop in this sector, but many actors have seen enough common interests to start moving in the direction of cooperation and exchanges.

We conclude that the Film and Audiovisual cluster is at the start-up or development stage, that it has accelerated the circulation of information between members of the sector, and has contributed to some learning and innovation (innovation usually coming later, when clusters are more established and connexions between actors more developed). There are still efforts to be made to ensure cooperation of many actors that are not directly in the cluster (tourism and film location actors such as real estate firms), as well as to ensure the transformation of competitive relations into cooperative relations throughout the cluster.

ANTECEDENTS OF SMALL INVESTORS' RISK TAKING PROFILES: AN EMPIRICAL STUDY**Tsoukatos, Evangelos¹**¹*TEI of Crete, Department of Finance and Insurance, P.O.B 128, 72100, Agios Nikolaos, Greece*

Purpose - During the last few decades the world has witnessed the integration of different types of financial institutions into a single, globally operating, system. Products and services delivered to corporate and private customers offer a very low-degree of differentiation and it is often a matter of just a few hours before a new financial product or service is copied by the competition and possibly distributed at a bargain price. In this extremely complex environment the term "private depositor" has been replaced by the term "private investor" or "small investor. This change is tied with the drastic transformation of the global financial environment and the dramatic decrease of deposit interests to the extent that depositors will actually have to pay a fee to the bank that accepts to keep their money. So, small capital holders who in the preceding financial era deposited their savings in a bank and enjoyed a handsome interest, in the present era have to invest their money and accept the risks associated with their investment decisions. However, "small investors", mostly private citizens, find it difficult to appraise the uproar of investment – related information they receive. Furthermore, the risk-taking decisions of small investors are rarely completely rational and are mostly based on their personality profile which in turn is influenced by their demographic, cultural or other characteristics.

Most financial institutions have developed instruments to assess the risk profile of their prospective private customers but only after customers have crossed institutions' thresholds seeking advice and assistance. Yet, little is known on the drivers and antecedents of small-investors' risk profiles. There is no published research in the literature although such knowledge would be mutually beneficial for both financial services firms and small investors. Should they were able to associate demographic and cultural characteristics of prospective investors with their respective risk-profiles, financial institutions would be able to appropriately segment their markets and design investment packages especially fit for specific market segments. On the other hand small-investors would choose between investment opportunities designed before-hand to fit their own needs and preferences.

Design/methodology/approach - This is an empirical study designed to examine the drivers and antecedents of the risk profiles of "small-investors" considering factors such as respondents' demographic characteristics (gender, age, occupation, marital status, family income etc.) and cultural values. A specially designed research instrument is used to collect data, including measurements of the risk and cultural profiles of respondents, that is statistically analysed to produce valuable results on the extent to which respondents' demographic and cultural characteristics are related to their respective cultural profiles. The study draws evidence from the Greek "small-investors" market.

Findings - The study provides evidence that respondents' risk profiles is closely associated with their demographic characteristics and personal cultural values and, therefore, it is possible for financial services firms to accordingly segment their small-investors markets.

Research limitations/implications (if applicable) - The study's implications are significant for both academia and practice. With respect to academia the study addresses a wide-open literature gap and initiates a new research stream that is expected to be followed by other researchers and produce new knowledge on small-investors' risk taking profiles that we do not have at the present time.

Practical implications (if applicable) - The study provides to financial services firms' management useful insight on how to segment their investors' markets and design investment proposals meeting the needs and preferences of particular segments. Furthermore, if properly disseminated, the study's

findings will also be beneficial to “small-investors” desperately seeking advice on how to create a small return on their savings or even safeguard the present value of their small capital.

Originality/value - There is no published research in the literature with respect to the drivers and antecedents of small-investors risk taking profiles. The study is original in that it is perhaps the first attempt to address the specific research subject under the light of demographic characteristics and personal cultural values. In this respect the value of this study will prove significant.

Type of Paper: Research Paper

Keywords: Small-Investors, Investment Products, Culture, Greece

AN ANALYSIS OF COLLABORATIVE KNOW-HOW THROUGH THE I-SPACE FRAMEWORK

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Purpose - The research sets out to combine the issue of knowledge management, fundamental to achieve and sustain competitive advantage, with the one of strategic alliances, analyzing one of the most important organizational knowledge assets, the ability to manage each phase of interorganizational collaboration cycles (from the identification and selection of potential partners to the ongoing management and the eventual termination of the relation), named collaborative know-how (Simonin, 1997). Indeed, despite the relevance of strategic alliances for value creation, collaborations often fail because of the difficulty inherent in their management (Simonin, 1997; Anand, Khanna, 2000; Ireland, Hitt, Vaidyanath, 2002; Kale, Dyer, Singh, 2002). The aim of the paper is therefore to make a contribution towards the understanding of those dynamics which lead to the generation and development of collaborative know-how and to highlight related problems of value generation and appropriation.

Design/Methodology/Approach - Even though the accumulation of experience across different partnerships is important in developing collaborative know-how, it is deemed to be a necessary but not sufficient condition for alliance success: it is important to invest in deliberate cognitive activities in order to leverage previous alliance experience (Simonin, 1997; Kale, Singh, 1999; Kale, Dyer, Singh, 2001, 2002; Zollo, Winter, 2002; Draulans, deMan, Volberda, 2003; Heimeriks, Duysters, 2007). Several mechanisms can be used to interpret, learn from, and share previous experience: creation of codified tools (databases containing firm alliance history, manuals, guidelines), formal and informal debriefings of alliance managers, alliance training systems, problem-tracking and problem-solving procedures, rotation across different partnerships of experienced alliance managers, alliance committees and task forces, dedicated alliance functions (Kale, Singh, 1999; Kale, Dyer, Singh, 2001, 2002; Draulans, deMan, Volberda, 2003; Heimeriks, Duysters, 2007). These organizational mechanisms foster the conversion of the tacit knowledge of people involved in collaborative activities into more explicit knowledge assets (words and/or written documents), thus making alliance management knowledge assets easier to get diffused within the firm and used in future partnerships. In order to analyze the characteristics, evolution and value dynamics of collaborative know-how, we use Boisot's (1998) I-Space theoretical framework, which absorbing and enlarging Nonaka and Takeuchi's (1995) distinction between tacit and explicit types of knowledge assets, analyzes knowledge through the joint use of three dimensions - abstraction, codification and diffusion. Abstraction points out the width of the range of applications of a knowledge asset: while abstract knowledge has several potential applications, concrete knowledge can only have specific uses in space and time. Codification captures the degree to which knowledge is articulated in written documents, figures, formulae, etc. Finally, the diffusion dimension represents the proportion of a given population which could get access to a knowledge asset. The three dimensions of Boisot's I-Space are linked together: the more codified and abstract a knowledge asset, the easier its diffusion over a given population.

The development of collaborative know-how is achieved through the structuring (abstraction and codification processes) of individuals' alliance experience. Indeed, through the use of the aforesaid

deliberate learning mechanisms, individual alliance management knowledge, which is concrete (confined to one or few similar collaborations), uncodified and hardly diffusible, is converted into a knowledge asset – i.e., collaborative know-how – which is, on the contrary, abstract (it can be used in several alliances, with different partners and governance structures), codified (it is often articulated in written documents, manuals, etc.), and therefore more useful and diffusible within the firm.

However, the structuring of alliance experience makes it diffusible not only inside the organizational structure but also outside it, thus making it more difficult for firms to preserve its scarcity and extract value from. Therefore, firms aiming at extracting value from collaborative know-how will also have to adopt those mechanisms avoiding its uncontrolled external diffusion: secrecy measures, contractual agreements, relational mechanisms (Liebeskind, 1996; Rullani, 2004; Castaldi, 2007).

Therefore, basing on Boisot's I-Space framework, we develop hypotheses on the effects on alliance performance of the adoption of mechanisms for the creation of collaborative know-how, on the one hand, and for its protection, on the other hand, to be tested through a quantitative analysis.

Findings - The research fosters a better comprehension of the role of the different mechanisms for the structuring and the protection of alliance management knowledge (and their balance) in improving alliance performance.

Originality/Value - This paper investigates a fundamental knowledge asset, i.e., collaborative know-how, identifying those processes leading to its creation as well as the problems of generated value appropriation.

Keywords: Collaborative know-how, I-Space, Knowledge assets

DO INTENSIVE RELATIONSHIPS WITH BUSINESS PARTNERS HELP TO INTERNATIONALIZE LITHUANIAN TEXTILE AND APPAREL COMPANIES?

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Purpose - Companies work in an environment, where activities of governments, competitors, customers, suppliers and other stakeholders are unpredictable. Changes in business environment can cause revolutionary changes in the main strategy of company, it can change international expansion decisions of business partners and competitors, which makes a process of company's international expansion chaotic. Thus, nowadays businessman has to care about his business future activities and has to forecast business activities of his business partners as well. Such forecasts are possible only when having close and active relations with business partners which ensure an active interchange of information between all parties.

Investigations show, that relationships with business partners are important for the internationalization of companies in Eastern Europe, and especially in the Post Soviet countries. So the main purpose of the paper is to show how intensity of relationships with business partners effects internationalization of Lithuanian textile and apparel companies.

Design/methodology/approach - Empirical data were collected by performing a questionnaire survey of managers responsible for company's international activities. 119 Lithuanian textile and apparel companies which already carry out international activities were selected for a survey. They were selected from the exporter/importer directory of the Lithuanian Development Agency and from a member list of the Lithuanian Apparel and Textile Association. This target group was chosen assuming, that if a company advertises in mentioned catalogs, it means that it is looking for international expansion opportunities. Questionnaire survey was carried out in July – August of 2007. 38 completed questionnaires were received, thus the response rate was 32%.

Bogardus scale and 6 points Likert scale was used for evaluation of managers attitudes about intensity of relationships with business partners.

The survey data were encoded and entered to SPSS file. After the verification and evaluation of data, factor analysis, Cronbach Alpha coefficient and inter-correlation matrix was used in order to calculate derivative variables. Taking in to account a small sample for further analysis of data I used Spearman Rho correlation coefficient, one-way analysis of variance and regression.

Derivative variables for the evaluation of relationships with business partners and of company's engagement to international activities are used in this paper.

Findings - It was found that Lithuanian textile and apparel companies' managers are very open for relationship and are ready for split of information with business partners. However data do not demonstrate a high involvement to international activities. Regression analysis showed, that even higher intensity with business partners wouldn't effect noticeable changes in the degree of internationalization form which is used by a company.

Research limitations/implications - A small sample and analysis only of one of the business sectors (textile and apparel industry) limits the generalization of results.

Practical implications - A paper demonstrates how intensity of relationships with business partners and level of company internationalization can be measured. It shows that active and open relationships with business partners do not ensure high international involvement.

Originality/value - A paper is valuable to researchers who investigate business partnership and measurements of company internationalization level. Paper findings can be interesting to the managers of textile and apparel companies in Lithuania and other developing countries.

Keywords Company internationalization, relationships with business partners.

Paper type Research paper

NETWORKS FOR LOCAL DEVELOPMENT. PLANNING A LOCAL FESTIVAL (CAL-ITER) FOR THE AVELLINO'S CHEESE INDUSTRY

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Purpose - This paper proposes a project for local development that adopts a systemic approach (from an economic-political point of view), which goes beyond a traditional place marketing approach. This perspective presents a geographic area as an integrated system of different values and resources. The proposed study refers to the planning of a "wine and food" festival network in the Province of Avellino (milk-cheese industry of Calitri), in which the network configuration is not spontaneous.

Design/Approach/Methodology - The approach followed in this contribution starts from a literature review of two different strands of study (the sociological-anthropological and economic-managerial perspectives) that have offered insights with regard to land management.

The sociological-anthropological approach, in particular the Landscape Architecture (Brinckerhoff Jackson, 1984), while suggesting an integrated human-environment view, doesn't recognize a geographic area as an integrated system as is the case with the Landscape Ecology (Dramstad *et al.*, 1996). In fact, this perspective focuses on a dynamic balance between the internal components which corresponds to a dynamic external balance, and interprets the natural ecosystem as a living system.

From an economic-managerial perspective, a territory is gradually interpreted as an integrated system made up of collaborative components, designed to enhance the local system. In this field of study, the Viable Systems Approach (Golinelli, 2000-2008) regards an area as a complex entity more than as a simple product. Thus, a territory becomes a entity endowed with systemic subjectivity and governance, characterized by collaborative relationships between the components to ensure broad and lasting benefits.

In addition, the identification of resources - more or less explicit - as a basic element of local competitive advantage, is supported by the Resource Based View (e.g. Moingeon *et al.*, 1995; Siano, 2001) which highlights the importance of re-combination and integration of local resources (e.g. cultural heritage), by means of shared beliefs and values between the different actors involved.

Finally, the proposed project of the Cal-Iter festival is developed by means of Network Analysis, which supports the identification, analysis and description of relationships and roles of partners in the network. The capabilities of the network nodes/partners have been detected and linked by a strategic local development framework, for the enhancement of Avellino's area in terms of increasing tourist flows and attracting inward investments.

Findings - The analysis of the *status quo* found that the implementation of integrated projects require local participation of Towns/Cities (Submitting Subjects), Regional and Provincial Authorities (Coordinating Subjects) and the State and the EU (Regulating Subjects) (Golinelli C.M., 2002).

Furthermore, the analysis of existing projects reveals the need to redefine the guidelines of Avellino's local development, by adopting a systemic approach. In particular, the City of Calitri, known for its gastronomic traditions, has promoted communication actions (festivals, trade fairs, etc.) of this kind that were not always consistent with a systemic approach. The main result of the analysis of the various initiatives implemented has been the planning of a festival network (Cal-Iter) for the promotion of the cheese industry, which should be an experience free from the "speculative" marketing approach.

Practical Implications - The proposed project may be an important factor both to support the "food and wine" tourism and to attract investments for the entire province of Avellino. Under the project, the consolidation of the "place identity" is further enhanced through the integration of "place communication", according to a systemic perspective (Siano *et al.*, 2008). This approach allows the festival network of the cheese industry to improve the results of the communication, in terms of place image and place reputation, and to enhance the tourism competitiveness of this location.

Originality/value - The study represents a first step in the planning of local networks for the enhancement of local areas. This has dual value: on the one hand, to stimulate tourism demand and on the other, to attract investments capable of generating, in turn, further demand for goods/services in the area.

Keywords: local development, local system, networks, festivals, "wine and food" tourism.

**CORPORATE GOVERNANCE AND FIRM PERFORMANCE: AN EMPIRICAL ANALYSIS OF
THE RELATIONSHIP BETWEEN PERFORMANCE AND OWNERSHIP CONCENTRATION
IN THE ATHENS STOCK EXCHANGE**

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Purpose - Firm value maximization is the target for every firm. According to theory, Corporate Governance is associated with firm performance measured in stock price appreciation, depending on the level of the agency cost problem between managers and stockholders. The higher the diffusion of ownership, the higher is the separation of ownership and control and consequently the higher the agency cost problem.

In this study, we investigate the impact of corporate governance on the performance of Greek publicly-traded large capitalization firms. We approach corporate governance by the degree of concentration of stockholdings, in a firm. The question we try to answer is if dispersion of ownership, size and public shareholding, affect firm performance measured by profitability.

Empirical studies suggest that higher firm profitability is correlated to a concentration in ownership structure (Demsetz and Lehn, 1985, Demsetz and Villalonga, 2001). Our hypothesis testing is that ownership diffusion is negatively correlated to stock value.

In Greece, there is limited research on this area (Kapopoulos and Lazaretou, 2006), with a limited number of studies focusing on the effect of insider ownership on firm performance (Karathanassis and Drakos, 2004).

Design and Methodology - The study uses OLS models on cross sectional data, on a sample of 81 publicly traded firms of the large capitalization category of the Athens Stock Exchange (ASE). The dependent variable is profitability, measured with the Tobin's Q ratio, with explanatory variables Majority Holders (i.e. % of stocks of largest stockholders) and Block Holders (i.e. % of stocks of stockholders with >5% of shares), used to measure the dispersion of ownership. The models are controlled for size of firms. Datastream database is used for the market related variables and Bloomberg for financial statement data. Descriptive statistics are also given on the ownership structure and profitability profile of the sample population.

The period covered is limited to years 2006 and 2007, because of the new regulations imposed in 2006 on trading stocks in the large capitalization category of ASE.

Findings - Descriptive statistics show that the Greek Stock market presents phenomena of extreme ownership concentration, even among the largest listed companies. Tobin's Q ratio presents an average of 1,95 showing that the market values the majority of stocks with a premium in their equity value. The regression results show that both ownership diffusion variables and size, are negatively and significantly correlated with the dependent variable, indicating that, in the large capitalization category of the ASE, given the size of the firms, the lower the dispersion, the better the performance.

Practical Implications - Greek firms should practice good governance as it is of value to shareholder and investors. Prospective investors should prefer smaller firms with low ownership dispersion in the ASE.

Originality/Value - The study covers the large capitalization sector of the ASE, for the period after the enactment of the new law on corporate governance. The methodology, variables and sample used

are different from the ones used in other studies on Greek publicly traded firms. The findings verify that low ownership dispersion contributes to higher firm value, thus helping to solve the ambiguity on this matter, for Greek firms.

Further research - Given constraints on data availability, further research should take also into account the fraction of shares owned by shareholders with at least 1% of shares and a panel data analysis for a more extended time period after 2006, to avoid the impact of business cycle.

EXPORT CHOICES AND MANAGEMENT OF COMMERCIAL RISKS IN TUNISIA

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This paper deals with the links between trade, liberalization and GDP growth in Tunisia. In this country, exports, as well as imports represent 50 % of the GDP. Tunisia is also strongly encouraged to liberalize its trade, which may not be compatible with its intention to intensify growth. Besides, with the negotiations on the Union for Mediterranean Sea, the consequences of trade liberalization are regarded as current matters once again.

The issue of the impact of trade liberalization on Tunisian growth also led to question the nature of what products are likely to promote GDP growth. We debate therefore whether the development scheme introduced by PALMA (2006), resting on exports of manufactured products that are in high demand in OECD countries, works for Tunisia, especially in times of liberalization set by treaties.

Our research has therefore two objects : the first is to analyse if agreements on commercial liberalization have had an impact on Tunisian trade and GDP growth. The second is to verify whether the scheme of development and economic growth based on the industrial sector can work for Tunisia.

Nevertheless, the bulk of the analysis remains dedicated to the case of the exports of goods towards the European Union (EU).

We use an approach which has the originality to take into account all the trade restrictions affecting Tunisian exports. The liberalization of trade does not exclusively encompass the elimination of tariff or quantitative barriers regulated by the International Agreements. The multitude of trade barriers makes it difficult to aggregate and tally them up. For the purposes of this paper, we have used year 1995 as the temporal benchmark to compare Tunisian trade before and after the signing of the Euro-Tunisian Agreement.

Moreover, other analyses dedicated to Tunisia (HOEKMAN et al., 2002 ; LORCA et VICENS, 2004 ; BACHTA et BEN MIMOUN, 2003 ; CHEIKZAOUALI, 2002) are essentially based on the transversal or punctual aspects of trade liberalization, and neglect the longitudinal dimension²⁹². The latter is based on how the country evolved and allows to take into account numerous events that have affected the country. To obtain equations in spite of these various events means that there is a strong interaction between some variables.

To obtain these equations, we use an econometric approach²⁹³, based on NEAR VAR models. These models are dynamic, because explicative variables have a lag. According to KRUEGER (1997), this approach is the best in order to test the impacts of trade liberalization.

Our results show that the scheme of economic development introduced by PALMA, which is an essential factor of growth noticed in East-Asian countries, is only partly proved in Tunisia. In this country, the uncertainty affecting exports towards the EU²⁹⁴ gives little room to argue that the demand coming from the OECD countries justifies the industrialisation of product exports. This uncertainty has another consequence : if Tunisia decides to renegotiate its trade conditions with the

292 « Longitudinal » applies to the study of a phenomenon in a country over a long period. Transversal approaches consider several countries but in a shorter perspective.

293 The method to carry out a totally longitudinal analysis and to use a temporal benchmark was not, in our opinion, previously used when dealing with liberalization in Tunisia.

294 The obtained \bar{R}^2 show that trade uncertainty is strong.

European Union, and chooses to increase its exports towards the European Union, it runs the risk of significant fluctuations of the GDP.

To intensify liberalization between Tunisia and the European Union is therefore a risky strategy for Tunisia because a significant part of growth would rest on extremely unforeseeable exports. Moreover, exports' fluctuations, either in increase or in decrease, are more accentuated following the Euro-Tunisian Agreement (1995). Nevertheless, this high risk strategy proved to be favourable to Tunisian growth, having considered the period of 1995-2007 globally²⁹⁵.

The strategy of intensifying exports towards the UE can therefore be adopted by Tunisia, provided that two conditions are fulfilled. According to our results, it is necessary that Tunisian industrial exports increase more than agricultural exports. The relative indicator of agricultural opening equaling the share of agricultural exports in the exports of goods, explains growth negatively. As a consequence, the fall of relative agricultural opening can benefit GDP growth. So, when agricultural exports increase, their increase must be smaller than that of other goods, in order to favour growth in Tunisia.

The second condition that must be met in order to annihilate possible risks linked to an intensification of liberalization is more of a political nature. We showed that the intent to intensify liberalization resulted in bigger fluctuations of exports towards the EU. These fluctuations turned out to be favourable to Tunisian growth. Nevertheless, it remains possible that such fluctuations hinder growth, for instance if production that is intended to the Tunisian market went towards the exports markets. To diminish this risk, Tunisia can request during the negotiations on the Union for Mediterranean Sea the introduction of a social clause, inspired for instance by article 14 of the Euro-Tunisian Agreement (1995)²⁹⁶.

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295 These results are evidenced by the calculation of annual average rates of growth.

296 This article envisages that measures of limited periods of time can apply to sectors confronted to serious difficulties when these difficulties cause serious social consequences.

INTERNATIONAL TRADE: GOVERNANCE NOT REGULATION THROUGH A META-MODEL :HINTS FOR AN EUROMEDITERRANEAN AREA

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Definition and purposes - The international trade is constituted by a set of shared and steady activities stabled by practice and customs with widespread among dealers. In this wise, this process institutionalize the correspondent phenomenology. The reality so bounded is the source for behavioural rules that are described in the market laws, but is also in rules of a multilateral agreement system. The knowledge of the process that carried to international agreements and to the international system is possible only by a systemic approach that allows to know the parts of the system and their teleological links.

In this way we will be able to point out the physiognomy of a structure that is characterized by social, political and economical processes that have the capacity to shape and continue the international trade. This approach is able also to highlight as rules are not able ever to maintain the system, it needs a governance.

The paper has the aim to highlight the nature of ultra-complex system of international trade system and that it needs a governance. In a deeper manner, our hypothesis is that in the analysis of the viable system, as the international trade is, that pointing out the analysis of need to relate and dialoguing among entities that are part of the system is necessary to define the “consonance level” and relevance of each entity for another. Then we maintain the hypothesis that by this analysis we can draw out a modelling for governance as a meta modelling that has the ability to have a tool for governability of the international or regional trade.

Approach and Methodology - Developing a conceptual work we think to join the static view of structuralism and the dynamic view; the latter is to recover the knowledge of the development and the influence/impact of dynamics and details of the phenomenology of the process.

The International trade flows point out that it is a web of relations and interactions that is an ordering interactive force and that has a need of steering and rules. The latter ones are in other words “the whole of actions that wish to determine the behaviour of the system” (Saraceno, 1972).

In the ultra complex systems is not a sufficient way to define positions and their relations, but is has main importance to settle the way and the intensity what in the viable systems approach is named “relevance”.

The Viable Systems Approach applied to International trade explains its productivity bounding main characteristics of the considered system and having hints to define steering and action schemes, anyway for governance.

Findings and practical implications - When the DG of WTO says that the international trade system has to be and maintain multilateral and open and when he says that it needs steering, control and cohesion among relevant parts of the system this is a pinpoint to affirm our first finding: the analysis of relations, their impacts (influences) is a main step to find qualitative factors (and information) to set steer and manage the system. Adopting this view international agreement or regional trade areas (RTAs) are tools to operate in this setting; they get possible the government.

By a meta model we have the base for a system of adaptive or proactive governance (flexible as the chance to choice and change set and tools). A meta model allows to give governance setting in coherence with objectives and ways of development.

Practical implications - Giving a model setting of governance recognizing a governance is representative of a viable system accomplished or quasi-accomplished. Having a government body expressing this set and coordinating and steering sub system of open trade flows in RTAs or free trade areas make the accomplishment and unitarity of the system real. It would be a great support to the harmonization of the international economic order.

Originality and value - The viable system approach gives the hints to catch the dynamism that underline and characterizes the evolving of every process of creation. The application of the approach furnish the way to formalize a flexible scheme to figure governance and governability of the system we investigate: the international trade.

The value is in designing not only rules (they will be the result) but shaping a non static scheme, but dynamic that will be able to give response (reaction, adaptation and evolution) to evolutionary system to give it the way to develop and mantain its existence.

